

# ***CURIEUSE MARINE***

# ***NATIONAL PARK***

## MANAGEMENT PLAN

## 2023 - 2027



Seychelles  
Parks and Gardens  
Authority







# FOREWARD



Mr. Allen Cedras  
**Chief Executive Officer**

The publication of this reviewed Management Plan for the Curieuse Marine National Park, follows lengthy strategic planning and consultation, supported by various stakeholders and respective staff of the Authority. We at the Seychelles Parks and Gardens Authority have understood and appreciate the ever-changing and dynamic seascape in which we operate. Hence, through this Plan, we are eager to share our direction and spearhead the Curieuse Marine Park to greater heights.

This Management Plan serves to guide the management team of the Curieuse Marine Park and SPGA in developing seamless pathways that enhance visitor experience, conservation and sustainable development. The document carefully builds off the previous objectives and targets of the past Management Plan, and in turn solidifies new goals and initiatives which leverages SPGA's and the Curieuse Marine National Park's mission and vision.

The Management Plan acknowledges the importance of adaptability, and carefully references the necessity of stakeholder and community engagement, leading to increased consultation and informed decision making. Going forward, SPGA's intentions remain clear to offer a unique visitor experience to those who visit this Marine National Park.

I am very encouraged by the exceptional spirit of cooperation that has been displayed throughout the conception of this Plan. Entrusted with the management and protection of the Curieuse Marine National Park; one of the most visited sites in the Seychelles - we are setting new standards for protected area management and pushing new boundaries.

The Management Plan is therefore a crucial step towards harnessing community and stakeholder engagement, efficient use of resources and sustainable eco-tourism offerings, all whilst remaining fixated on the Authority's mission to ensure that the Park is well managed for the benefit of all. But this is just the beginning. Much of the real work lies ahead of us. I patiently look forward to working with all stakeholders and partners to honour all recommendations set forth herein.

# ***ACKNOWLEDGEMENT***

SPGA gratefully acknowledges the contributions of all of its stakeholders, in the preparation of this Management Plan for the Curieuse Marine National Park. The Authority further extends its greatest gratitude to the GOS-GEF-UNDP Ridge to Reef Project, under the Program Development and Coordination Section within the Department of Environment for making the production of the Management Plan possible.





# MESSAGE FROM THE CONSULTANT

In the preceding Management Plan, significant progress was achieved in conserving the diverse ecosystems and cultural heritage of Curieuse Island. Efforts were made to address challenges such as habitat degradation, illegal activities, and unsustainable tourism practices. Strong collaborations were formed with stakeholders, and conservation initiatives were well underway. However, there's still much work to be done to ensure the long-term sustainability and vitality of the Curieuse National Park. Building upon these achievements, this updated Management Plan aspires to further elevate the conservation and management standards of Curieuse.

Crafting a vision for Curieuse Island's Plan of Management (2023-2027) as an independent consultant necessitates a perspective deeply rooted in professionalism, pragmatism, and an unwavering commitment to the safeguarding of Curieuse Island's extraordinary natural heritage. One envisions Curieuse Island as:

***Holistic Conservation:*** The foremost objective is to ensure the comprehensive conservation of Curieuse Island's diverse ecosystems, which include coral reefs, mangroves, coastal forests, and mountain landscapes. The approach entails mitigating habitat degradation, addressing illegal fishing practices, combatting invasive species, and developing strategies to mitigate the impact of climate change, thereby securing the flourishing biodiversity of the island.

***Scientific Excellence:*** The foundation of this vision rests on a dedication to scientific excellence. Priority is given to establishing partnerships with esteemed research institutions to drive rigorous scientific inquiry. This deepens our understanding of Curieuse's ecosystems and species, enhancing the effectiveness of management strategies.

***Sustainable Tourism:*** The vision places significant emphasis on the promotion of responsible tourism practices. Through a meticulously designed Visitor Management Plan and strategic infrastructure enhancements, the aim is to create a harmonious balance between the enjoyment of Curieuse and its protection. Community engagement and participation are pivotal to this effort.

***Financial Sustainability:*** Central to this vision is the establishment of a self-sustaining financial model for the management of Curieuse Island. This involves diversifying income streams, optimizing resource allocation, and ensuring the long-term conservation of this unique ecosystem.

***Community Empowerment:*** The vision acknowledges the pivotal role of local communities as indispensable partners in the preservation of Curieuse. It ensures their participation in decision-making processes and conservation initiatives.

***Heritage and History:*** The vision recognizes and cherishes Curieuse Island's cultural heritage and historical significance. It is dedicated to preserving not only its natural wonders but also the island's unique human story.

This vision is characterized by pragmatism, adaptability, and an unwavering commitment to continuous improvement. The Curieuse Plan of Management (2023-2027) is conceived as a dynamic and responsive document, poised to address the evolving needs of the island and its stakeholders. The dedication remains steadfast in forging a future where Curieuse Island stands as an inspiration of integrated conservation and sustainable development."

Mrs. Ingrid Tirant  
**Cutting-Edge Consultancy**



# Executive Summary

The Curieuse Marine National Park Management Plan<sup>1</sup> for 2023-2027 outlines a comprehensive strategy to conserve and sustainably manage the biodiverse marine and coastal protected area of Curieuse. The Plan builds upon successes of the previous Plan and addresses emerging challenges to preserve the Park's unique ecosystems, wildlife, and cultural heritage while promoting responsible tourism and community engagement.

The vision of the Curieuse Marine National Park is to be a pristine natural sanctuary, fostering ecological integrity, community well-being, and sustainable tourism. The Plan acknowledges the Park's conservation values, including its high biodiversity, unique ecosystems, and scientific significance. Key management issues, such as habitat degradation, illegal fishing, poaching, invasive species, climate change, and unsustainable tourism, are identified and addressed.

Stakeholder engagement and collaboration play a crucial role in achieving conservation goals. Regular consultations, workshops, and participatory decision-making processes will ensure all stakeholders have a voice in park management.

The Plan emphasizes zoning to designate different areas based on ecological, recreational, and cultural values. Specific regulations define each zone to ensure sensitive habitats are protected while providing sustainable recreational opportunities.

Nature conservation efforts focus on coral reefs, mangroves, coastal forests, mountain landscapes, freshwater wetlands, marine turtles, giant tortoises, and the iconic Coco-de-Mer Palm. Strategies include habitat restoration, species protection, and community involvement.

Sustainable tourism practices will be promoted through a Visitor Management Plan, infrastructure development, and partnerships with tourism operators. Responsible visitor behaviour and involvement of local communities in tourism planning will be prioritized.

The Curieuse Marine National Park Management Plan 2023-2027 represents a forward-thinking and holistic approach to conserve this unique marine and coastal protected area under the auspice of a financially autonomous SPGA. Through effective governance, stakeholder engagement, conservation efforts, and sustainable tourism practices, the Plan aims to ensure the long-term preservation of Curieuse's natural and cultural heritage for the benefit of present and future generations. It sets the foundation for the Curieuse National Park to become a model for conservation and sustainable development globally.



<sup>1</sup>Management Plan as defined in the Nature Reserves and Conservancy Act, 2022.



# Introduction

Curieuse Marine National Park is a biodiverse marine and coastal protected area located in Seychelles, renowned for its unique ecosystems, wildlife, and cultural heritage. This Management Plan outlines a comprehensive strategy for conserving and sustainably managing the Curieuse Marine National Park from 2023 to 2027.

The Plan builds on the achievements of the previous management period (2018-2022) and aims to address emerging challenges, enhance conservation efforts, promote responsible tourism, and foster community engagement.





# PRELIMINARY

**1.1 Name of the Plan:** Curieuse Marine National Park Management Plan 2023-2027

**1.2 Plan's Application:** The Management Plan applies to the Curieuse Marine National Park and surrounding areas.

**1.3 Intent of the Plan:** To guide the conservation and sustainable management of Curieuse Marine National Park over the next five years.

**1.4 Governing Legislations:** Seychelles Parks and Gardens Authority Act, 2022, Nature Reserves and Conservancy Act, 2022 and other relevant legislations related to biodiversity, protected areas and management.

## **1.5 Vision and Mission**

Our vision is to preserve the Curieuse Marine National Park as a pristine natural sanctuary, fostering ecological integrity, community well-being, and sustainable tourism.

Our mission is to protect and restore the Park's ecosystems, engage stakeholders in conservation efforts, and promote responsible tourism practices for the benefit of present and future generations.

**1.6 Conservation Values:** The Plan recognizes the high biodiversity, unique ecosystems, cultural significance, and scientific importance of the Curieuse Marine National Park.

The Curieuse Marine National Park is a precious natural sanctuary that harbours a multitude of conservation values, making it a vital and irreplaceable component of Seychelles' ecological and cultural heritage. The Management Plan acknowledges and emphasizes the following key conservation values:

**High Biodiversity:** Curieuse Marine National Park stands as a biodiversity hotspot, supporting a remarkable array of plant and animal species. The Park's diverse ecosystems, ranging from pristine coral reefs and mangrove forests to coastal forests and mountain landscapes, create a mosaic of habitats that sustain a rich variety of flora and fauna. The Park is home to numerous endemic, rare, and threatened species, including Seychelles Giant Tortoises (*Aldabrachelys gigantea*), Hawksbill Turtles (*Eretmochelys imbricata*), rare bird species, and the iconic Coco-de-Mer Palm (*Lodoicea maldivica*). The preservation of this biodiversity is crucial for maintaining healthy ecological interactions and ensuring the long-term survival of these unique species.

**Unique Ecosystems:** Curieuse Marine National Park's ecosystems possess distinctive ecological features that contribute to their global significance. The coral reefs within the Park are characterized by exceptional coral diversity, hosting a multitude of marine organisms that rely on these delicate structures for shelter, feeding grounds, and reproduction. Mangrove ecosystems play a vital role in shoreline stabilization, acting as natural buffers against coastal erosion and providing essential nursery habitats for juvenile marine species. The coastal forests and mountain landscapes support a variety of endemic and specialized species, showcasing the exceptional adaptive capacity of life in Seychelles' unique island environment.



**Cultural Significance:** Beyond its ecological importance, Curieuse Marine National Park holds cultural significance for Seychellois communities. The Park's history as a former Leper Colony during the 19th century adds to its cultural heritage, and the stories of resilience and human history are interwoven with its natural beauty. Historical knowledge and traditional practices associated with the use of natural resources for food, medicine, and handicrafts contribute to the rich cultural tapestry of the Park. Recognizing and respecting these cultural aspects are integral to fostering a harmonious relationship between human communities and the Park's conservation objectives.

**Scientific Importance:** Curieuse Marine National Park serves as an invaluable outdoor laboratory for scientific research and discovery. Scientists from various disciplines have been drawn to the Park's unique ecosystems, offering opportunities to study marine biodiversity, coral reef health, ecological processes, and the impacts of climate change on island environments. The Park's role as a living laboratory enables researchers to explore innovative solutions for conservation and management challenges, contributing to global knowledge and best practices for protected area management.

Preserving these conservation values is not only essential for safeguarding the natural and cultural heritage of the Curieuse Marine National Park but also for maintaining the ecological balance of Seychelles' marine and coastal environments. By recognizing and prioritizing these values, the Management Plan ensures that conservation efforts are targeted effectively, guided by scientific insights, and carried out in a manner that respects the unique cultural heritage of the Park. Moreover, by protecting these values, the Plan reinforces the Park's significance on the global stage, promoting sustainable tourism and international collaboration in conservation initiatives that extend beyond Seychelles' borders. Through dedicated management and stakeholder collaboration, Curieuse Marine National Park will continue to be a beacon of conservation excellence, preserving its treasures for the enjoyment and benefit of present and future generations.



**1.7 Management Issues:** The Plan addresses key challenges such as habitat degradation, illegal fishing, poaching, invasive species, climate change, management of historical sites such as the Curieuse leprosy site, causeway, and unsustainable tourism.

Curieuse Marine National Park faces several critical challenges that threaten the ecological integrity and sustainability of its diverse ecosystems. The Management Plan identifies and addresses the following key issues to ensure effective conservation and management strategies:



**Habitat Degradation:** Habitat degradation is a pressing concern in the Curieuse Marine National Park, resulting from various human activities. Unsustainable development, coastal construction, and land-use changes can lead to the destruction and fragmentation of vital habitats such as mangrove forests and coastal forests. Additionally, coral reefs are susceptible to physical damage from human contact, anchoring, and destructive fishing practices. The Plan aims to mitigate habitat degradation by maintaining zoning measures, maintaining protected areas, and promoting sustainable land-use practices that prioritize conservation and minimize human impact on critical habitats.

**Unlawful Fishing:** The Management Plan acknowledges the grave menace of unlawful fishing that jeopardizes the marine biodiversity within the Park's waters. In response to this challenge, the Plan underscores the imperative creation of no-take zones. It is pivotal to engage in cooperation with local fisher folk and fishing communities for ownership and sound sensitisation of marine protected areas.

**Invasive Species:** Invasive species, both terrestrial and marine, can outcompete native flora and fauna, alter ecosystems, and negatively impact biodiversity. Curieuse Marine National Park is susceptible to invasive plant species that can dominate coastal forests and outcompete indigenous vegetation. Additionally, marine invasive species can disrupt coral reef communities and alter marine ecosystems. The Plan includes measures to prevent the introduction and spread of invasive species through enhanced biosecurity measures, early detection and rapid response strategies, and community engagement in invasive species management.

**Climate Change:** Climate change is one of the most significant global challenges impacting marine and coastal ecosystems. Rising sea temperatures, ocean acidification, and extreme weather events such as cyclones can result in coral bleaching, loss of marine biodiversity, and habitat degradation. The Management Plan acknowledges the importance of climate change adaptation and resilience strategies, including coral reef restoration, monitoring of climate impacts, and community-based initiatives to enhance coastal resilience.

**Unsustainable Tourism:** Tourism, while vital for the local economy, can also pose risks to the Park's ecosystems if not managed responsibly. Overcrowding, uncontrolled access, improper waste disposal, and the use of damaging recreational activities like snorkelling or diving near sensitive marine habitats can cause harm. The Plan addresses unsustainable tourism by developing a comprehensive visitor management strategy that sets visitor capacity limits, establishes clear guidelines for sustainable tourism practices, and enhances visitor education to promote responsible behaviour within the Park.

**Land-Based Pollution:** Pollution from land-based sources, such as run-off from agriculture, untreated sewage, and litter, can degrade water quality and harm marine life within the Park's coastal and marine ecosystems. The Management Plan emphasizes the need for effective waste management systems, water quality monitoring, and community awareness programs to reduce land-based pollution and protect marine habitats from contamination.

**Budget Constraints and Financing of Non-Profitable Sections of SPGA:** One of the significant challenges faced by the Curieuse Marine National Park's management is budget constraints and the financial burden imposed by non-profitable sections of the Seychelles Parks and Gardens Authority (SPGA). As a protected area, the Park relies on adequate funding to support essential conservation and management activities. However, limited financial resources can hinder the implementation of crucial conservation initiatives, infrastructure development, and community engagement efforts within the Curieuse Marine National Park.

By recognizing and addressing these critical management issues, the Plan demonstrates a comprehensive and proactive approach to safeguarding the ecological balance and cultural heritage of

the Curieuse Marine National Park. Through the implementation of targeted strategies, active collaboration with stakeholders, and a commitment to adaptive management, the Park can effectively tackle these challenges and ensure its continued role as a beacon of biodiversity conservation and sustainable tourism in Seychelles and beyond.

**1.8 Management Goals:** The goals include biodiversity conservation, ecosystem restoration, sustainable tourism, community engagement, research and monitoring, effective governance, and maintenance and restoration of historical infrastructures.

The Management Plan for the Curieuse Marine National Park sets forth a comprehensive set of goals that guide the conservation and sustainable management efforts from 2023 to 2027. These goals encompass a diverse range of aspects that are vital for the effective protection and enhancement of the Park's unique ecosystems, biodiversity, and cultural heritage. The management goals include:

### **Biodiversity Conservation**

Biodiversity is the cornerstone of the Curieuse Marine National Park's ecological health and resilience. The primary goal is to conserve the Park's rich biodiversity, including its marine and terrestrial flora and fauna. This involves protecting endangered and endemic species, preserving critical habitats, and maintaining the delicate balance of ecological interactions that sustain the Park's ecosystems.

### **Ecosystem Restoration**

Recognizing that some areas within the Park might have been affected by habitat degradation and anthropogenic impacts, the Plan aims to implement ecosystem restoration measures. These efforts involve rehabilitating degraded habitats, reforestation and restoring coastal areas, and supporting natural processes of ecological recovery.

### **Sustainable Tourism**

The Management Plan emphasizes the importance of sustainable tourism that balances visitor enjoyment with the conservation of natural resources. The goal is to promote tourism practices that minimize negative impacts on the environment, respect wildlife and cultural sites, and provide economic benefits to local communities.

### **Community Engagement**

Engaging with local communities is crucial for the successful conservation of the Curieuse Marine National Park. The goal is to establish meaningful and mutually beneficial partnerships with the neighbouring communities. This will include involving them in decision-making processes, providing opportunities for sustainable livelihoods, and fostering a sense of stewardship and ownership over the Park's resources.

### **Research and Monitoring**

To make informed management decisions and track the effectiveness of conservation efforts, robust research and monitoring programs are essential. The goal is to conduct scientific research to better understand the Park's ecosystems, monitor key species populations, and assess the impacts of human activities and climate change.

### **Effective Governance**

Effective governance is fundamental for the successful management of any protected area. The Plan seeks to establish a transparent and efficient governance structure, with clear roles and responsibilities for all stakeholders involved in park management. This includes the Seychelles Parks and Gardens Authority, government agencies, local communities, NGOs, and other relevant partners.



## Infrastructure Development

Infrastructure development within the Park is carefully planned to support conservation and visitor management needs. The goal is to develop necessary infrastructure, such as visitor centres, trails, signage, and waste management systems, while adhering to sustainable design and construction practices.

## Strategies for Financial Sustainability

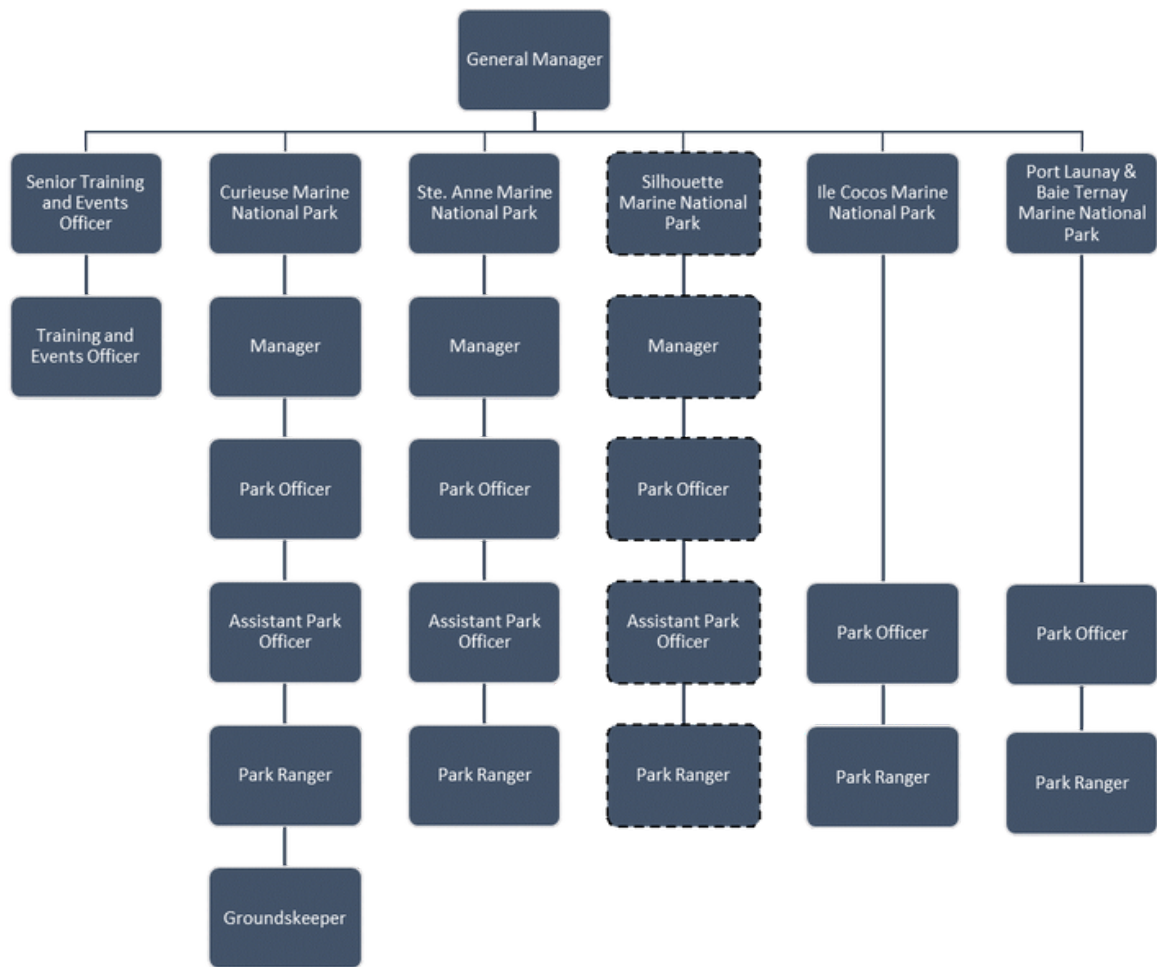
To address budget constraints and mitigate the impact of financing non-profitable sections, the Management Plan proposes the following strategies:

- ***Diversification of Funding Sources:*** The Plan emphasizes the need to explore diverse funding sources beyond traditional government allocations. Seeking financial support from international donors, conservation grants, public-private partnerships, and corporate sponsorships can help supplement the Park's budget and support critical conservation initiatives.
- ***Revenue Generation within the Curieuse Marine National Park:*** The Management Plan aims to enhance revenue generation within the Park by promoting sustainable tourism practices. By developing ecotourism activities, visitor experiences, and specialized tourism packages, the Park can attract more visitors, thereby increasing revenue that can be reinvested in conservation efforts.
- ***Cost-Benefit Analysis:*** Conducting cost-benefit analyses for various projects and activities can help prioritize resource allocation. By focusing on high-impact, cost-effective initiatives, the Park can optimize the utilization of its limited financial resources and achieve meaningful conservation outcomes.

Each management goal is interconnected and plays a vital role in achieving the overall vision of preserving the Curieuse Marine National Park as a pristine natural sanctuary. By effectively addressing biodiversity conservation, ecosystem restoration, sustainable tourism, community engagement, research and monitoring, effective governance, and infrastructure development, the Management Plan aims to ensure the long-term sustainability and protection of this unique marine and coastal protected area. These goals collectively contribute to the Park's resilience, allowing it to withstand environmental challenges and changes, and continue to provide ecological, social, and economic benefits to present and future generations



**1.9 Management and Reporting Structure:** The Plan outlines the organizational structure, roles, and responsibilities of park management staff, including the Seychelles Parks and Gardens Authority (SPGA) and relevant stakeholders.



**1.10 Stakeholders<sup>2</sup> involvement:** The Plan emphasizes the importance of stakeholder engagement, participation, and collaboration in decision-making and management processes.

Stakeholder engagement is a fundamental aspect of the Management Plan. It recognizes that the success of conservation efforts and sustainable management depends on the active participation, collaboration, and support of a diverse range of stakeholders. The Plan aims to foster meaningful engagement with all relevant parties, including government agencies, local communities, environmental organizations, tourism operators, scientists, and other interested groups. The emphasis on stakeholder involvement extends to various aspects of decision-making and management processes within the Park:

**1. Participatory Decision-Making**

The Plan advocates for participatory decision-making processes that allow stakeholders to contribute their insights, perspectives, and knowledge. Regular consultations, workshops, and forums will be organized to gather input from stakeholders during the planning, implementation, and evaluation stages. By involving stakeholders in decision-making, the Management Plan ensures that diverse viewpoints and interests are considered, leading to more informed and balanced decisions.

<sup>2</sup> See Annex I for a non-exhaustive list of Stakeholders.



## **2. Collaborative Management**

Recognizing that the protection of the Curieuse Marine National Park is a collective responsibility, the Plan promotes collaboration amongst stakeholders. It encourages joint efforts and partnerships, allowing different organizations and agencies to pool their resources, expertise, and capacities. Collaborative management fosters a sense of shared ownership, leading to more effective and coordinated actions in tackling conservation challenges.

## **3. Transparent Communication**

Effective communication is essential for building trust and fostering open relationships among stakeholders. The Plan emphasizes transparent communication channels, ensuring that relevant information, updates, and decisions are shared with all interested parties. Regular communication will facilitate understanding, enable constructive feedback, and keep stakeholders informed about the progress and outcomes of conservation initiatives.

## **4. Building Capacity**

Engagement goes beyond seeking input; it also involves building the capacity of stakeholders to actively participate in conservation efforts. The Plan will offer training, workshops, and educational programs to empower local communities, park staff, and partners with the necessary skills and knowledge for effective engagement in park management.

## **5. Conflict Resolution**

Stakeholder involvement may sometimes lead to conflicting interests or priorities. The Plan acknowledges this possibility and aims to establish mechanisms for conflict resolution. By fostering open dialogue and constructive engagement, the Management Plan seeks to find common ground and mutually acceptable solutions to challenges and conflicts that may arise.

## **6. Consensus-Building**

In complex conservation scenarios, building consensus among stakeholders is crucial for the successful implementation of management strategies. The Plan encourages consensus-building through active engagement, mediation, and negotiation. By achieving consensus, stakeholders are more likely to commit to the shared goals and support collective actions for the benefit of the Curieuse Marine National Park.

Overall, the emphasis on stakeholder involvement underscores the importance of collective action in conserving and managing the Curieuse Marine National Park. By engaging stakeholders, promoting collaboration, and valuing diverse perspectives, the Management Plan seeks to create a sense of ownership and stewardship among all involved parties, leading to more effective, sustainable, and inclusive conservation efforts.



**1.11 Management Regulations:** The Plan outlines the existing regulations and proposes any necessary updates or additions to ensure effective management and compliance.

Management regulations play a crucial role in guiding effective conservation and sustainable management. These regulations are essential tools for ensuring that human activities within the Park's boundaries align with its conservation goals and do not compromise the integrity of its unique ecosystems. The Management Plan recognizes the significance of existing regulations and also acknowledges the need for potential updates or additions to address emerging challenges and promote compliance. The approach to management regulations within the Plan includes the following elements:

### **1. Review of Existing Regulations**

The Management Plan will conduct a comprehensive review of the current regulations governing the Curieuse Marine National Park. This review will assess the effectiveness of the existing rules and their alignment with the Park's conservation values and management goals. It will also consider feedback from stakeholders and lessons learned from previous management periods to identify areas for improvement.

### **2. Identification of Regulatory Gaps**

Through the review process, the Plan will identify any gaps or inadequacies in the existing regulations. These gaps may pertain to specific activities, zones, or resources that require better protection or management. By identifying these gaps, the Plan aims to strengthen the regulatory framework to address potential threats and challenges faced by the Park.

### **3. Proposal of Updates and Additions**

Based on the review and gap analysis, the Management Plan will propose updates or additions to the existing regulations. These proposals will be guided by scientific evidence, best practices in conservation management, and considerations of the Park's unique characteristics. The Plan will take into account the dynamic nature of ecosystems and prioritize adaptive regulations that can respond to changing environmental conditions and emerging threats.

### **4. Integrating Local Knowledge and Community Perspectives**

As part of the regulatory development process, the Plan will actively involve local communities and indigenous groups who have traditional knowledge of the area. Their insights and perspectives will be integrated into the regulatory framework, ensuring that the regulations consider cultural values, practices, and local livelihoods. This approach fosters a sense of ownership and responsibility among communities, enhancing compliance and support for park management.

### **5. Clarity and Accessibility**

The proposed regulations will be drafted in a clear and accessible manner to facilitate understanding and compliance. The Plan will use plain language and visual aids when possible, making the regulations user-friendly for park staff, stakeholders, and visitors alike. This clarity will contribute to increased awareness and adherence to the rules, promoting the protection of the Park's natural and cultural heritage.

### **6. Enforcement and Compliance Mechanisms**

Effective enforcement is vital for the success of any management regulations. The Plan will outline robust enforcement mechanisms to deter illegal activities and ensure compliance with the established rules. It will specify the roles and responsibilities of Park Rangers, law enforcement agencies, and other relevant authorities in enforcing the regulations. Additionally, the Plan will consider the use of modern technologies, such as surveillance systems and remote sensing, to strengthen enforcement efforts.



## **7. Education and Awareness Programs**

To promote compliance and understanding of the regulations, the Management Plan will design and implement education and awareness programs. These programs will target park visitors, local communities, and tourism operators, providing them with information about the regulations, the reasons behind them, and their role in safeguarding the Park's natural values. By fostering a culture of compliance and respect for park rules, these programs will contribute to sustainable park use and conservation efforts.

## **8. Periodic Review and Adaptation**

Recognizing that regulations may need to evolve over time, the Management Plan will establish a framework for periodic review and adaptation. This process will involve stakeholders, park management staff, and relevant experts to assess the effectiveness of the regulations and propose further updates as needed. The adaptive approach ensures that the regulations remain relevant and effective in addressing new challenges and opportunities for conservation.

By addressing the management regulations in a comprehensive and adaptive manner, the Plan seeks to establish a robust framework for sustainable and effective management of the Curieuse Marine National Park. These regulations will form the backbone of park governance, promoting conservation, sustainable tourism, and community engagement for the long-term preservation of this precious natural sanctuary.

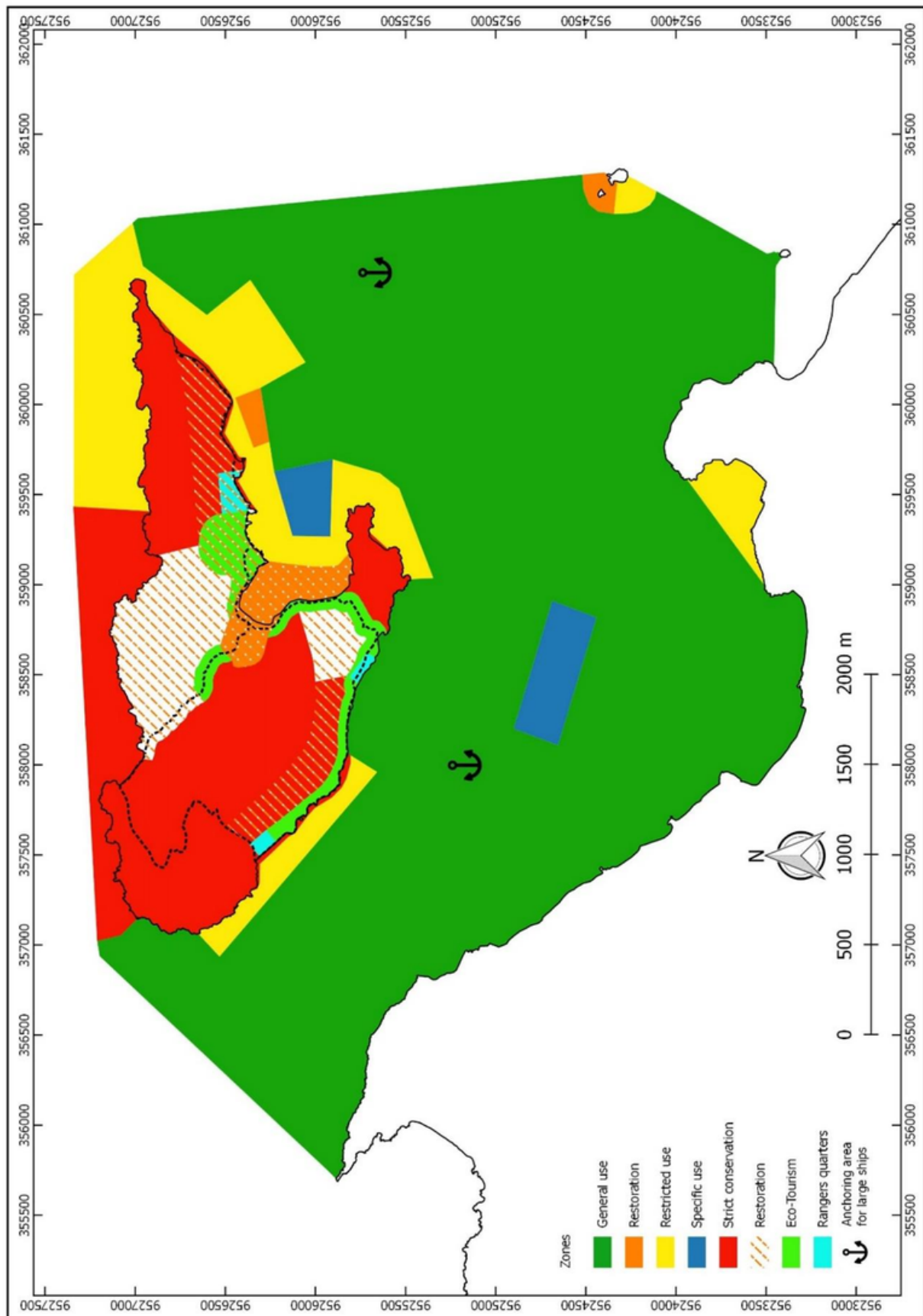
### **Stakeholder Engagement and Collaboration**

To achieve our conservation goals, we recognize the importance of engaging with stakeholders and fostering collaboration. We will establish a multi-stakeholder committee comprising of government agencies, local communities, environmental organizations, tourism operators, and scientists to oversee the implementation of the Management Plan. Through regular consultations, workshops, and participatory decision-making processes, we will ensure that all stakeholders have a voice in park management and conservation activities. We will also seek partnerships with tourism operators, local communities, and relevant stakeholders to promote sustainable tourism practices and develop guidelines for responsible visitor behaviour.



## 2. Zoning Plan

The zoning Plan for the Curieuse Marine National Park has been carefully designed to reduce conflicts amongst different types of activities taking place within the Park, while prioritizing conservation objectives. Each zone serves a specific purpose in preserving the unique ecosystems and wildlife found on the island and in the marine environment.





Maritime Zones					
	Strict Conservation Zones	Restoration Zones	Restricted Use Zones	General Use Zones	Specific Use Zones
<b>Conservation Objectives</b>	To ensure the strict protection of rare, sensitive or vulnerable ecosystems, habitats, species.	To ensure specific protection and restoration of rare, sensitive or vulnerable ecosystems, habitats, species (mangroves and corals).	To ensure protection of important, sensitive and significant ecosystems, habitats, species.	To ensure that the structures and functions of marine environment are maintained.	To contain certain activities to mitigate impact on important, sensitive and significant ecosystems, habitats, species.
<b>Park Use Objective</b>	Conservation of extra sensitive habitat and species. Research and monitoring purpose. Education and awareness. Promote scientific research.	Improve the expanse and quality of vulnerable habitats.	To provide a range of educational and recreational activities and opportunities for park users to learn about biodiversity, sustainable use of the marine habitat and conservation. Promote scientific research.	To provide opportunities for park users and visitors to have access to and discover the marine environment and use it in a sustainable manner. Educate Park users and the general public of the importance of maintaining the structure and function of marine environment. Promote research.	To mitigate conflict with other users and/or activities.
<b>Target</b>	Nesting sites of marine turtles (Hawksbill and Green turtles).	Specific mangrove forest and coral reef areas.	Areas with significant areas of coral reefs.	Majority of the area.	Small areas with specific activities.
<b>Prohibited Activities</b>	Landing, all other activities (if not accompanied by ranger).	Mooring, anchoring and all extractive activities.	Anchoring (if not in sandy areas) and all extractive activities.	All extractive activities.	All other activities apart from those specified.
<b>Authorised Activities</b>	Monitoring/scientific research.	Navigation, marine tours, scuba diving, snorkelling, swimming.	Swimming, snorkelling, diving, navigation, mooring.	Navigation, marine tours, mooring, anchoring, scuba diving, snorkelling, swimming.	Navigation (in certain cases), monitoring and scientific research.

Terrestrial Zones				
	Strict Conservation Zones	Restoration Zones	Eco-tourism Zones	Rangers Quarters
<b>Conservation Objectives</b>	To ensure the strict protection of rare, sensitive or vulnerable ecosystems, habitats, species such as the Coco-de-Mer.	To ensure specific protection and restoration of rare, sensitive or degraded ecosystems and habitats.	To ensure that the structures and functions of terrestrial environment are maintained.	To contain other activities that are essential for the management of the Curieuse Marine National Park (e.g. rangers accommodation, electricity generation).
<b>Park Use Objective</b>	Conservation of extra sensitive habitat and species. Research and monitoring purpose. Education and awareness. Promote scientific research.	Improve the expanse and quality of vulnerable habitats (e.g. mountain slopes).	To provide opportunities for visitors to have access and discover the terrestrial environment and use it in a sustainable manner. Educate Park users and the general public of the importance of maintaining the structure and function of the terrestrial environment. Promote research.	To prevent operational activities of the park from affecting the environmental experience of visitors.
<b>Target</b>	Majority of the area with Coco-de-Mer forest.	Areas of the coastal plateau and degraded mountain slopes.	Small areas at the landing and picnic sites and along the trails.	Small areas at Baie Laraie, Anse St. José and Caïman.
<b>Prohibited Activities</b>	All activities apart from those specified in the <i>Authorised Activities</i> , smoking.	All extractive activities apart from the management of invasive species, smoking.	All extractive activities apart from the management of invasive species, smoking, lighting of open fires.	Lighting of open fires.
<b>Authorised Activities</b>	Monitoring, scientific research, management of Coco-de-Mer forest.	Monitoring, scientific research, habitat restoration activities, education and learning.	Exploration, photography, picnic.	All activities required for the management of the Park.



The Marine National Park comprises five types of zones:

1. **General Use Zones:** These zones focus on low-impact recreational and tourism activities, allowing controlled numbers of visitors to engage in activities such as snorkelling, swimming, and low-impact tourism. Anchoring and fishing are prohibited to protect biodiversity and habitats.
2. **Restricted Use Zones:** Sensitive habitats are protected in these zones, where controlled research activities are allowed with specific research goals and permits. Anchoring, fishing, and uncontrolled access are prohibited, promoting scientific research with appropriate permits.
3. **Specific Use Zones:** These zones aim to preserve specific ecological areas for educational and research purposes. Educational programs and research activities are authorized, while anchoring and uncontrolled access are not permitted.
4. **Strict Conservation Zones:** These zones are designated for the protection of critical habitats, and no human presence or activities are allowed, in order to preserve these crucial areas without any disturbance.
5. **Restoration Zones:** Habitat restoration and recovery efforts are focused on these zones, where limited human intervention is allowed to aid restoration initiatives. Restoration activities and habitat enhancement projects are authorized, and uncontrolled access and extraction of resources are prohibited.

For the Island itself, there are four types of zones:

1. **Strict Conservation Zones:** Similar to the Strict Conservation Zones in the Marine environment, these zones aim to preserve critical habitats without any human presence or activities.
2. **Restoration Zones:** Restoration efforts to recover habitats are the primary objective of these zones, allowing limited human intervention to support restoration projects.
3. **Eco-tourism Zones:** These zones are dedicated to sustainable tourism and community benefits. Controlled tourism activities and local community involvement are encouraged, while destructive activities and large-scale developments are prohibited.
4. **Rangers Quarters:** This zone serves as the base for Park Rangers and administrative functions to efficiently manage and enforce park regulations. Unauthorized entry and occupation are not permitted in this area.

By implementing this Zoning Plan, the Curieuse Marine National Park aims to strike a balance between conservation, sustainable tourism, research, and community involvement, ensuring the protection of the island's unique biodiversity and cultural heritage for present and future generations. The Plan also allows for the effective enforcement of regulations and the implementation of restoration projects to enhance ecological resilience and safeguard the Park's natural treasures.



### 3. Nature Conservation:

In the 2023-2027 Management Plan, this section focuses on the conservation aspects concerning ecologically significant ecosystems, habitats, and species within Curieuse Island and the surrounding protected waters. It aims to emphasize the significance of these areas, identify factors that may impact their functioning, and present actionable strategies to address the identified issues and promote conservation efforts.

#### 3.1 Coral Reefs and Associated Ecosystems:

##### 3.1.1. Values

The values related to coral reefs and associated ecosystems on Curieuse Island and the Curieuse Marine Park remain relevant and important. They include:

**Biodiversity Hotspot:** Coral reefs being one of the most biologically diverse habitats in the world, supporting a vast array of marine species and biodiversity, making them essential for maintaining ecological balance.

**Protected Area Status:** The presence of 14ha of coral reefs within the Curieuse Marine National Park, highlighting its significance as a protected area for these ecosystems, ensuring their conservation and sustainable use.

**Ecosystem Connectivity:** The connectivity of coral reef communities within Curieuse to other reefs outside the Park through adult and larval movement, emphasizing their role in larger marine ecosystems and promoting genetic diversity.

**Ecological Importance:** The outstanding status of coral reefs as a key factor in the declaration of Curieuse as a Marine National Park in 1979, underlining their ecological importance and role in maintaining marine biodiversity.

**Recreational Value:** Snorkelling and diving as popular activities in the Park, indicating the ecological and recreational value of these ecosystems, fostering tourism and appreciation for marine life.

**Coastal Protection:** The coastal protection value of coral reefs in mitigating wave action and protecting the shoreline, reducing erosion and safeguarding coastal communities.

##### 3.1.2. Issues

The identified issues affecting coral reefs on Curieuse Island and the Curieuse Marine Park remain relevant and require attention:

**Climate-Induced Stress:** Extensive damage to coral reefs caused by mass coral bleaching events in 1998 and 2016, linked to the El Niño phenomenon, leading to coral mortality and degradation, exacerbating the impacts of climate change.

**Recovery Challenges:** Many shallow reef sites used for snorkelling covered by coral rubble and not showing signs of recovery, impacting the recreational experience and biodiversity, necessitating restoration efforts.

**Ecosystem Imbalance:** Phase-shift from coral to macro-algae and rubble domination at some reef sites, affecting ecosystem balance and reducing habitat suitability for various marine species, requiring ecosystem restoration measures.



**Biodiversity Decline:** The breakdown of reef structure contributing to the loss of biodiversity in other reef-associated fauna, such as fish and molluscs, necessitating habitat restoration and conservation measures.

**Uncontrolled Anchoring:** Uncontrolled and indiscriminate anchoring of boats on coral reefs due to the lack of mooring buoys, Zoning Plans, and enforcement of park regulations, causing direct physical damage to coral reefs and demanding stronger protective measures.

**Anthropogenic Impacts:** Anthropogenic effects on coral reefs primarily caused by anchor damage, leading to habitat degradation and loss of biodiversity, requiring improved management and monitoring efforts.

**Data Insufficiency:** Limited scope of present coral reef monitoring programs, leading to insufficient information on the current status and health of coral reefs within the park, necessitating expanded monitoring initiatives.

By addressing these values and issues and implementing effective strategies, Curieuse National Park aims to preserve and restore its coral reefs and associated ecosystems, ensuring their resilience to environmental threats and long-term sustainability for the benefit of marine biodiversity and local communities.

### 3.1.3. General Objectives and Strategies

#### *Objective 1: Enhance Community Engagement for Coral Reef Conservation*

Strategies:

**Implement a Community-Based Management Approach:** Drawing from Clifton et al.'s governance analysis, develop a community-based management approach that involves local communities in decision-making processes related to coral reef conservation. Engage local stakeholders in participatory management practices, empowering them to contribute to the protection and sustainable use of coral reefs.

**Utilize Traditional Knowledge:** As highlighted in the study, recognize and integrate traditional ecological knowledge of local communities into coral reef management strategies. Collaborate with communities to incorporate their insights into conservation efforts and decision-making processes.

#### *Objective 2: Strengthen Governance and Enforcement for Coral Reef Protection*

Strategies:

**Enhance Multi-Stakeholder Collaboration:** In alignment with Clifton et al.'s findings, establish collaborative partnerships with governmental agencies, non-governmental organizations, research institutions, and local communities. Foster joint efforts to improve governance structures and enforcement mechanisms, ensuring comprehensive protection of coral reefs.

**Promote Adaptive Management:** Building on the governance analysis, implement an adaptive management approach that allows for flexibility and responsiveness in coral reef conservation strategies. Regularly review and adjust Management Plans based on changing environmental conditions, new scientific findings, and stakeholder input. Moreover, SPGA should continuously leverage the expertise of its existing staff to solidify and maintain the ongoing coral restoration programmes to achieve greater success.

### *Objective 3: Enhance Climate Change Resilience of Coral Reefs*

#### Strategies:

By implementing these proposed strategies, Curieuse Marine National Park aims to bolster its efforts in coral reef conservation and resilience-building against the threats posed by human activities and climate change. The active involvement of the community, tourism operators, and various stakeholders will be critical in safeguarding these valuable ecosystems for future generations.

### **3.2 Mangroves:**

#### **3.2.1. Values**

The values associated with wetlands at Baie Laraie and Anse Jose in the Curieuse Marine National Park are ecologically and recreationally significant:

**Ecosystem Importance:** The wetlands serve as critical habitats for a diverse range of intertidal and avian species, contributing to the Park's overall ecological richness and biodiversity.

**Educational Opportunities:** The presence of wetlands provides educational opportunities for visitors to learn about the unique characteristics and functions of these ecosystems, promoting environmental awareness and conservation.

**Visitor Attraction:** The accessible and well-maintained trails leading to the wetlands offer visitors the chance to explore and appreciate the beauty and natural diversity of these habitats, enhancing the recreational value of the Park.

**Birdwatching Potential:** The wetlands attract a variety of bird species, making them a prime location for birdwatching and nature-based tourism.

**Climate Resilience:** Wetlands play a crucial role in climate resilience by acting as carbon sinks and providing natural flood control and storm protection.

#### **3.2.2. Issues**

The identified issues affecting wetlands in the Curieuse Marine National Park pose challenges to their ecological integrity and visitor experience:

**Trail Maintenance:** The need for regular trail clearing and maintenance to ensure safe and enjoyable visitor access to the wetlands.

**Information Availability:** Insufficient information available to visitors about the significance and ecological importance of the wetland habitats.

**Visitor Experience:** The lack of designated rest areas and information boards at wetland sites hinders visitor comfort and understanding of the ecosystem.

**Restoration Opportunities:** The potential for restoring degraded wetland areas to enhance biodiversity and ecological functions.

**Environmental Interpretation:** The need to enhance environmental interpretation and educational materials at the wetland sites to increase visitor engagement and awareness.



### 3.2.3. Enhanced Strategies for Mangrove Conservation and Engagement

#### *Objective 1: Amplify Visitor Access and Understanding of Wetland Ecosystems*

Strategies:

**Holistic Trail Maintenance and Safety Enhancement.** (Status: Achieved? No)

Update: Inspired by Clifton et al.'s governance analysis, institute a proactive and regular trail maintenance program to ensure trails leading to Baie Laraie and Anse Jose wetlands are safe, clear, and accessible year-round. Elevate the focus from a mere practical necessity to a strategic governance responsibility.

**Illuminating Educational Signage Implementation.** (Status: Achieved? No)

Update: In resonance with the article, design and deploy engaging information boards strategically positioned within the wetland areas. Draw on Clifton et al.'s insights to craft informative content that fosters deeper visitor engagement and ecological awareness.

**Enriching Visitor Experience Through Rest Areas.** (Status: Achieved? No)

Update: Construct inviting resting platforms furnished with benches at well-chosen spots along the trails, aligning with Clifton et al.'s findings. These platforms not only provide physical respite but serve as educational nodes, enriching the visitor experience.

#### *Objective 2: Elevate Ecological Health and Resilience of Wetland Habitats*

Strategies:

**Comprehensive Wetland Restoration Study.** (Status: Achieved? No)

Update: Conduct a thorough feasibility study that echoes Clifton et al.'s comprehensive analysis. This study will delve into the potential of wetland restoration, integrating the ecological nuances and governance dynamics highlighted by the article.

**Collaborative Wetland Restoration Endeavours.** (Status: Achieved? No)

Update: Collaborate synergistically with local partners, NGOs, and research institutions as advocated by Clifton et al. This collaboration aims to implement wetland restoration projects grounded in evidence-based practices and guided by a governance-oriented perspective.

**Dynamic Wetland Monitoring Regime.** (Status: Achieved? No)

Update: Institute a robust monitoring program aligned with Clifton et al.'s emphasis on governance. This program will monitor wetland health, avian populations, and key ecological indicators, ensuring adaptive management and gauging the effectiveness of restoration efforts.

**Harness the knowledge and skills of staff to enhance and fortify the continuous conservation initiatives.**

Staff members are actively involved in mangrove restoration, taking the initiative to establish their own mangrove nursery and engage in planting activities. This program can be further reinforced through improved infrastructure and expanded efforts, with a focused approach to achieving measurable results, ensuring both success and long-term sustainability.

By addressing these objectives and strategies, the Curieuse National Park aims to enhance visitor experiences, promote environmental education, and strengthen the ecological resilience of wetland ecosystems within the Park.

### 3.3 Coastal Forest and Mountain Landscapes

#### 3.3.1. Values

The coastal forest and mountain landscapes of Curieuse Island hold significant ecological and cultural values:

1. The dense coastal forest provides essential shade and helps keep the Island cool, creating a comfortable environment for both wildlife and visitors.
2. The mountain landscape hosts a unique habitat for drought-tolerant plants, making it an important ecological feature of Curieuse Island.
3. The mountain vegetation comprises numerous endemic plant species, such as Coco-de-Mer, Bois dur blanc, and Café maron (*Erythroxylum sechellarum*), contributing to the island's biodiversity and cultural significance.
4. Much of the mountain vegetation remains largely undisturbed by human activity, aside from damage by fires.

#### 3.3.2. Issues

Several issues pose challenges to the conservation and restoration of coastal and mountain ecosystems on Curieuse Island:

1. The undergrowth of the coastal forest is dominated by non-native plants, providing little suitable habitat for the island's wildlife.
2. The steepness and poor soil quality of the mountain slopes lead to sparse vegetation and increased risk of soil erosion.
3. The dry nature of the mountain landscape makes it susceptible to fires, which can have detrimental impacts on the ecosystem.
4. Visitors smoking on the trails pose a significant fire risk, especially in the dry and vulnerable mountain areas.
5. Habitat restoration efforts on Curieuse are costly due to the challenging terrain and ecosystem complexity.

#### 3.3.3. General Objectives

##### *Objective 1: Restore degraded coastal and mountain ecosystems*

Strategies:

1. Provide opportunities for NGOs, civil society groups, research institutes, universities, and local businesses interested in terrestrial habitat restoration and research to collaborate and participate in restoration activities. Encourage and facilitate partnerships between various organizations and stakeholders to actively engage in habitat restoration efforts, leveraging their expertise and resources.



2. Restore the coastal forest found in the Restoration Zone through the removal of unfavourable vegetation such as Cocoplum and Coconut and replace with native broadleaf coastal species. Focus on removing invasive non-native plant species and restoring the coastal forest with native plant species that are well-adapted to the environment.

3. Restore the mountain landscape found in the Restoration Zone using native drought-tolerant plants. Implement restoration projects to enhance the vegetation cover on the mountain slopes, using plant species that can withstand dry conditions.

### *Objective 2: Protect the Island's Terrestrial Biodiversity.*

#### Strategies:

1. Reduce the risk of bushfires by introducing measures to control the lighting of fires, barbeque activities, and smoking by staff and visitors. Maintain and enforce strict fire prevention measures, including prohibiting fires and barbeques in sensitive areas, and enforcing a smoking ban on designated trails and in high-risk areas.

Note: Consider using drones, specialised cameras and other related high-tech equipment as an effective tool for swift detection, prevention, and response to fires, allowing for rapid assessment and intervention measures.

By pursuing these objectives and strategies, Curieuse Marine National Park aims to restore and protect its coastal and mountain ecosystems, ensuring the preservation of biodiversity, mitigating fire risks, and promoting sustainable visitor activities in these sensitive areas.



### 3.4 Freshwater wetlands:

#### 3.4.1. Values

The freshwater wetlands on Curieuse Island hold immense ecological and cultural significance:

**Water Source:** These wetlands serve as vital sources of freshwater, supporting the needs of the island's residents, wildlife, and plant communities, contributing to the overall water availability and ecosystem health.

**Biodiversity Hotspots:** While limited studies have been conducted, the freshwater wetlands likely harbour diverse flora and fauna, making them valuable areas for scientific exploration and documentation of unique species.

**Giant Tortoise Habitat:** The wetlands act as important resting habitats for the Giant Tortoises (*Aldabrachelys gigantea*), contributing to the conservation and protection of this iconic species.

**Endemic Species:** Curieuse's freshwater wetlands provide essential habitats for rare and endemic species, such as Eels (*Anguilla bicolor bicolor*), Gourzon (*Pachypanchax playfairii*), and endemic terrapins (*Pelusios castanoides intergularis*), adding to the island's biodiversity and ecological significance.

#### 3.4.2. Issues

Despite their value, the conservation and management of freshwater wetlands on Curieuse Island face several challenges:

**Insufficient Research:** Limited studies and information are available on the fauna of the wetlands, highlighting the need for more research and documentation to understand and protect these valuable habitats fully.

**Invasive Species:** Overgrowth by the Mangrove fern (*Acrostichum aureum*) and encroachment by the Cocoplum (*Chrysobalanus icaco*) are affecting the health and accessibility of the wetland areas, requiring active management to control invasive species.

**Under promoted Eco-Tourism Potential:** The coastal freshwater wetlands are not actively promoted as eco-tourism attractions due to their overgrown and inaccessible nature, limiting visitors' engagement and appreciation of these unique ecosystems.

**Birdwatching and Accessibility:** The clogged-up condition of the wetlands restricts access to birds, including migrants and waders, potentially impacting birdwatching and bird conservation activities.

**Flooding during Rainy Season:** During the rainy season, the flooding of the coastal plateaux restricts the movement of staff and visitors on the Island, affecting visitor experiences and activities.

**Mosquito Breeding Grounds:** Unmanaged wetlands can serve as ideal breeding grounds for mosquitoes, posing potential health risks to both wildlife and visitors.



### 3.4.3. General Objectives

*Objective 1: Increase scientific knowledge and awareness about freshwater wetland ecosystems to better understand and manage them.*

Strategies:

Collaborate with NGOs, research institutes, and universities to study the biodiversity and ecology of Curieuse wetland habitats and restore degraded wetlands. Foster partnerships with relevant organizations to conduct comprehensive studies, ecological surveys, and restoration projects focused on wetland conservation. Utilize scientific findings to inform management decisions and protection measures.

*Objective 2: Improve the functionality of wetlands.*

Strategies:

Clear wetland areas of invasive species. Implement targeted measures to control and remove invasive species, such as the Mangrove fern and Cocoplum, to restore the natural balance of wetland ecosystems. Enhance the ecological health of wetlands and promote the growth of native species.

*Objective 3: Integrate wetlands into the Curieuse eco-tourism experience.*

Strategies:

Make wetlands at Baie Laraie and Anse St. José more accessible to visitors by improving access and providing space around them for rest and relaxation. Enhance visitor experience by creating safe and comfortable access points, walking trails, and observation areas to appreciate the beauty and ecological importance of the wetlands. Develop eco-tourism programs that highlight the unique features and biodiversity of the wetlands, encouraging responsible and educational visits.

By pursuing these objectives and strategies, Curieuse Marine National Park aims to enhance scientific understanding, protect and restore the functionality of freshwater wetlands, and incorporate these valuable ecosystems into the eco-tourism experience, fostering a deeper connection between visitors and the island's natural heritage.

## 3.5 Marine turtles:

### 3.5.1. Values

Marine turtles hold immense ecological and economic importance on Curieuse Island:

**Eco-tourism Attraction:** Marine turtles, being iconic species, are a major attraction for eco-tourism, drawing visitors from around the world to witness these magnificent creatures in their natural habitat. The presence of turtles enhances the visitor experience, fostering a deeper connection with nature and wildlife.

**Conservation Significance:** Hawksbill Turtles (*Eretmochelys imbricata*) and Green Turtles (*Chelonia mydas*) are both classified as critically endangered and endangered, respectively, on the IUCN Red List of Threatened Species, underlining the critical importance of their conservation. Curieuse Island serves as a vital nesting site for these endangered species, contributing significantly to their survival.

**Key Nesting Sites:** Grand Anse and Anse Papaie are crucial nesting beaches, hosting a significant percentage of seasonal total egg clutches, further highlighting their importance for turtle conservation. Protecting and managing these nesting sites are essential for the successful reproduction and growth of turtle populations.

**Positive Nesting Trends:** Recent data indicate a positive trend in nesting population, with a notable increase in the number of nests over the past few decades. This positive trend signifies progress in conservation efforts and highlights Curieuse Island's role in supporting turtle populations.

**Interconnected Populations:** Some turtles nesting on Curieuse are also known to nest on other inner islands, emphasizing the interconnectedness of turtle populations within the region. Conserving nesting beaches on Curieuse contributes to the wider conservation efforts for marine turtles in the Seychelles.

### 3.5.2. Issues

Despite conservation efforts, several challenges affect the marine turtles on Curieuse Island:

**Illegal Landing and Poaching:** Illegal landing on turtle nesting beaches and evidence of poaching incidents raise concerns about the vulnerability of nesting turtles to illegal activities. Strengthening monitoring and enforcement measures is crucial to deter and address these threats effectively.

**Nesting Growth Rate:** While there has been an increase in turtle nesting activity on Curieuse over the past 25 years, the rate of increase is slower compared to neighbouring islands of Cousin and Aride. In-depth research is necessary to understand the factors influencing nesting patterns and identify potential interventions and this shall be achieved.

**Impact of Vegetation:** Roots of trees, such as Coconut (*Cocos nucifera*) and Casuarina (*Casuarina equisetifolia*), are impacting nesting attempts at some beaches. Fallen trees on nesting beaches are also blocking access to nesting habitats, potentially reducing nesting opportunities for turtles.

**Beach Erosion:** Beach erosion poses a significant threat to nests, leading to the loss of eggs and reducing the availability of suitable nesting areas for turtles. Implementing measures to protect nesting sites from erosion is vital for the successful hatching and survival of turtle eggs.

### 3.5.3. General Objectives

*Objective 1: Improve management of important turtle nesting beaches and increase the number of turtles nesting annually.*

Strategies:

**Enhance Monitoring and Surveillance:** Increase protection of the main turtle nesting beaches, especially during the Hawksbill Turtle nesting season, through enhanced monitoring and surveillance to deter illegal activities on nesting beaches.

**Improving Nesting Conditions:** Address issues such as fallen trees and root impacts on nesting attempts at Anse Papaie and Grand Anse to create more favourable conditions for nesting turtles, supporting successful nesting and hatching.



**Protecting Nests from Erosion:** Implement measures to protect nesting sites from erosion, including beach nourishment and coastal restoration projects. Explore strategies for relocating vulnerable nests to safer areas, ensuring the survival of turtle eggs.

**Support Research Initiatives:** Maintain a high level of turtle monitoring and support targeted research initiatives to better understand nesting trends and challenges faced by marine turtles on Curieuse Island. Research findings will inform evidence-based conservation strategies

By implementing these strategies, Curieuse Marine National Park aims to enhance the conservation and protection of marine turtles, ensuring the continued growth of nesting populations and contributing to the preservation of these endangered species for future generations.

### **3.6 Giant tortoise:**

#### **3.6.1. Values**

Giant tortoises hold immense historical and ecological significance on Curieuse Island:

**Historical Presence:** Wild populations of Giant tortoises were once abundant on most inner islands of Seychelles when the region was first discovered, highlighting their historical presence and importance in the ecosystem. Their existence on Curieuse Island adds to the Island's rich natural heritage.

**Conservation Success:** The introduction of 250 Giant tortoises (*Aldabrachelys gigantea*) from the Aldabra Atoll between 1978 and 1982 created a new population of these iconic creatures on Curieuse Island. This successful conservation initiative showcases the efforts to protect and preserve these unique species.

**Tourist Attraction:** Giant tortoises have become one of the main tourist attractions on Curieuse Island, drawing visitors to witness and interact with these gentle giants. Their presence enhances the island's appeal and provides opportunities for educational and eco-tourism experiences.

**Breeding and Nursery:** The successful breeding of the Giant tortoise population on Curieuse is well-documented, and the establishment of a nursery for young tortoises ensures their protection and conservation. This nursery plays a vital role in the preservation of tortoise populations.

#### **3.6.2. Issues**

Despite the successful introduction of Giant tortoises to Curieuse Island, several challenges affect their conservation:

**Nursery Security:** The high incidence of poaching of baby tortoises from the nursery remains a significant concern, indicating the need for enhanced security measures to protect these vulnerable individuals.

**Suspected Involvement:** Suspensions suggest that individuals working on Curieuse Island may be involved in the theft of baby tortoises, necessitating internal investigations and stricter protocols.

**Proving Origin:** Proving the origin of stolen baby tortoises, even when their location is known, is difficult, complicating law enforcement efforts to address the issue effectively.

**Predation and Recruitment:** Predation by rats continues to pose a threat to baby tortoises in the wild, resulting in very few juvenile tortoises observed in their natural habitat. Ensuring their survival is crucial for population growth.

**Distribution and Ecology:** The breeding and recruitment of young tortoises seem to be limited to certain areas, such as Baie Laraie, with little evidence of young tortoises in other regions like Grand Anse. Understanding their distribution and ecological role is essential for effective conservation.

### 3.6.3. General Objectives

*Objective 1: Increase the number of Giant tortoises on Curieuse Island by reducing the loss of baby tortoises caused by predation and theft.*

Strategies:

**Enhance Nursery Security:** Secure the tortoise nursery area and reduce the loss of baby tortoises related to predation and theft to zero. Implement advanced security measures, conduct regular patrols, and utilize monitoring systems to deter and detect theft and predation incidents.

**Nursery Expansion:** Expand the nursery capacity and facilities to accommodate an increased number of baby tortoises collected from the wild. Implement a comprehensive program to collect and safely transfer baby tortoises from the wild to the nursery, ensuring their survival and successful growth in a protected environment.

By implementing these strategies, Curieuse Marine National Park aims to strengthen the Giant Tortoise population on the island, mitigate the threats posed by predation and theft, and contribute to the conservation of this iconic species for future generations.



### 3.7 Coco-de-Mer:

#### 3.7.1 Values

Coco-de-Mer, a unique and endemic species of Seychelles, holds significant ecological and economic values on Curieuse Island;

**Endemic Rarity:** Coco-de-Mer is an exclusive endemic species found solely in the Seychelles, with original habitats on Praslin and Curieuse Islands. Its presence on Curieuse Island adds to the Island's ecological distinctiveness.

**Important Habitat:** Curieuse Island is one of the top three most critical habitats for Coco-de-Mers in the Seychelles, boasting a significant population of more than 4,500 trees, with an estimated total of around 10,000 trees. The preservation of this habitat is essential for the conservation of the species.

**Tourist Attraction:** The Coco-de-Mer nuts are highly sought after by visitors to the Seychelles due to their uniqueness and rarity, making them desirable and expensive. These nuts command a premium price, averaging about US\$ 500, with varying prices for different shapes, conditions, and even kernel sales. The existence of Coco-de-Mers on Curieuse Island further augments its attractiveness as an eco-tourism hotspot.

**Historical Conservation:** The Coco-de-Mer forest on Curieuse has been protected since the early 1830s when George Harrison recognized the conservation benefit of using Curieuse as a leper colony to deter poaching of this valuable species. This historical conservation effort showcases the Island's commitment to preserving its natural heritage.

#### 3.7.1 Issues

Despite its importance, several challenges threaten the sustainability of Coco-de-Mer populations on Curieuse Island:

**Insufficient Research:** Limited knowledge of the Coco-de-Mer's biology and ecology exists due to its long lifespan, slow maturity, and insufficient research projects focused on this species. A better understanding of its life cycle and ecological role is vital for effective conservation.

**Challenging Habitat Access:** The Coco-de-Mer forest is situated in a dry and mountainous area that is difficult to access, hindering regular monitoring and management efforts. Improved access and monitoring methods are necessary for effective conservation.

**Poaching Threat:** Coco-de-Mer poaching continues to be a problem, leading to damage of Coco-de-Mer palms and a decline in the wild population. Enhanced surveillance and public cooperation are essential to combat illegal activities.

**Limited Planting Efforts:** The number of Coco-de-Mer trees planted on Curieuse in recent years has been minimal, despite efforts to sell planting packages to elites at a high price. Increasing planting initiatives can contribute to the species' conservation.

#### 3.7.3 General Objectives

*Objective 1: Increase the number of Coco-de-Mer trees in the wild.*



Strategies:

**Establish a Long-term Planting Programme:** Develop a comprehensive and sustainable plan to increase the population of Coco-de-Mer trees by actively planting and nurturing new individuals. Encourage local communities and visitors to participate in planting initiatives. To ensure responsible and sustainable resource use, a pre-specified ratio of 1:7 will be adopted, wherein for every Coco-de-Mer tree that is harvested, seven (7) new seeds will be planted as a replacement, promoting the conservation and replenishment of this iconic species. SPGA should also consider selling the harvested Coco-de-Mer on Curieuse itself to reduce on transportation costs and maximize commercial activities on the Island itself.

**Enhance Understanding of Coco-de-Mer:** Collaborate with other local and international partners and scientists to monitor and conduct targeted research on the Coco-de-Mer's biology, ecology, and reproductive patterns. Utilize new technology, such as drones, for efficient data collection and monitoring over challenging terrain.

**Implement Long-term Monitoring:** Improve a long-term monitoring program based on a sub-sample of Coco-de-Mer trees to track population dynamics and health, providing valuable data for conservation decisions.

### *Objective 2: Improve Surveillance of the Coco-de-Mer Forest.*

Strategies:

**Drones for Vigilance:** Harness cutting-edge technology like drones to intensify surveillance of Coco-de-Mer forests, heightening detection and deterrence of poaching activities. Regular drone patrols serve as a proactive deterrent.

**Community Engagement:** Encourage members of the public to report known or suspected Coco-de-Mer poaching incidences, fostering a collaborative approach to protect this valuable species. Promote awareness of the importance of Coco-de-Mer conservation amongst local communities and visitors.

By implementing these strategies, Curieuse National Park aims to increase the population of Coco-de-Mer trees, enhance scientific knowledge about this species, and ensure better protection of this iconic and valuable plant for future generations. The Park's efforts will contribute to the conservation of Coco-de-Mers as an integral part of the Island's natural heritage.

## **4. History and Heritage:**

### **4.1.1 Values**

Curieuse Island's history and heritage holds significant cultural and historical values:

**Historic Role as a Leprosy Refuge:** Curieuse Island played a crucial role as a refuge for leprosy sufferers during various periods between 1829 and 1965, making its history rich and unique. The Island's historical significance is tied to its humanitarian role in providing care and support to those affected by leprosy.

**The Doctor's House National Monument:** The Doctor's House at Anse St. José, a plantation-style building constructed in 1873 by Dr. William MacGregor, served as the medical officer's residence during the time of the leper facilities. The recent restoration and designation of the Doctor's House as a national monument under the National Monument Act highlights its architectural and historical importance.

**Preservation of Cultural Relics:** Numerous cultural relics, such as the ruins of houses where lepers and medical staff lived, the cemetery, and other facilities, still stand on Curieuse, offering a glimpse into its historical past. The preservation of these relics showcases the Island's commitment to conserving its cultural heritage.

**Historical Causeway:** The causeway at Baie Laraie, built in 1909 by Henri Chenard, was used to form a pond for rearing turtles for their shells, adding to the island's historical significance. It represents a tangible connection to the island's past economic activities.

#### 4.1.2 Issues

Despite the historical importance of Curieuse Island, several issues threaten the preservation and accessibility of its cultural relics:

**Degradation of Cultural Relics:** Many cultural relics on the island, except for the Doctor's House, have not received adequate maintenance over the years, leading to their ongoing degradation. Proper upkeep and restoration are necessary to protect these relics for future generations.

**Damage to the Causeway:** The causeway, extensively damaged by the 2004 Indian Ocean tsunami, has not been repaired, resulting in severe degradation of the mangrove forest it used to protect. Restoring the causeway is essential to preserve the mangrove habitat and its historical significance.

**Lack of Information for Visitors:** Insufficient information is provided to visitors about the history of Curieuse, limiting their understanding and appreciation of the island's cultural significance. Enhanced interpretation and educational materials can enrich the visitor experience.

**Limited Accessibility to Historical Records:** A significant part of Curieuse's history remains inaccessible, confined to old reports in museums, which could benefit from digitization and broader accessibility. Digitizing historical records can make them more widely available and enhance historical research and appreciation.

#### 4.1.3 General Objectives

*Objective 1: Ensure that the historical and heritage sites on Curieuse are protected and maintained*

Strategies

**Conduct Regular Maintenance and Restoration:** Prevent further degradation of historical and heritage sites through regular upkeep, maintenance, and restoration, where required, to preserve their integrity and historical value.

*Objective 2: Better integrate the history of Curieuse Island into the eco-tourism experience.*

Strategies:

**Enhance Site Accessibility:** Improve access to all historical and heritage sites on Curieuse Island, making them more visitor-friendly and encouraging exploration. This can include well-marked paths, viewing platforms, and guided tours.

**Provide Informative Interpretation:** Enhance the provision of information on historical and heritage sites through informative signage, brochures, and guides, allowing visitors to gain insights into Curieuse's fascinating history and cultural heritage.

**Digitize Historical Records:** Digitize historical records and make them more accessible to visitors and the general public through online platforms, virtual tours, or educational materials, ensuring that Curieuse's history can be enjoyed and appreciated beyond the Island itself.

By implementing these strategies, Curieuse Marine National Park aims to safeguard its historical and heritage sites, enhance the visitor experience, and foster a deeper understanding and appreciation of its rich cultural past. The preservation and promotion of the island's history contribute to its identity as a unique and culturally significant destination for both locals and visitors.

## **5. Tourism**

### **5.1.1 Values**

Tourism in the Curieuse Marine National Park continues to play a significant role, contributing to the following values:

**Visitor Trend Analysis:** The number of visitors to Curieuse Island exhibits a distinct pattern from 2018 to the first quarter of 2023. Notably, the number of visitors from 2018 to 2019, stood at 50,507 to 42,141, respectively. However, an abrupt decline occurred in 2020, plummeting to 9,808, likely attributed to the adverse effects of the COVID-19 pandemic on global travel. The subsequent year, 2021, witnessed a partial recovery as the number of visitors rebounded to 22,805. By 2022, there was a significant resurgence, with a visitor count of 43,166. This trend continued into the first quarter of 2023, with 12,961 visitors, showcasing a steady recovery.

**National Tourism Contribution:** Over the analysed period, Curieuse Marine National Park has consistently played a substantial role in Seychelles' national tourism landscape. In 2016, the Seychelles Parks and Gardens Authority (SPGA) accounted for 28.84% of national visitors. This share saw a progressive increase, reaching 39.39% in 2021. The 2022 data stood at 12.90% which still signifies the growing appeal of Curieuse Island amongst tourists and its integral role in driving the country's tourism sector.

**Visitor Magnetism:** Curieuse Island's allure as a tourist destination remains evident throughout the examined period. The influx of visitors has positioned the Island as one of the most frequented reserves in the nation. This popularity underscores the Island's unique blend of natural beauty, diverse habitats, and conservation efforts that continue to captivate both local and international tourists.

In summary, the visitor statistics reveal a dynamic trend in the number of visitors to Curieuse Island over the years, with notable fluctuations driven by factors such as the global pandemic. Despite these fluctuations, Curieuse Island's significance as a prominent contributor to national tourism remains steadfast, indicating its enduring appeal and impact.

### **5.1.2 Issues**

Despite the significant benefits, tourism in the Curieuse Marine National Park faces some challenges:

1. The COVID-19 pandemic had a severe impact on visitor numbers, resulting in a 72.68% decline in 2020 compared to 2019.
2. Lack of sufficient information provided to visitors about the Park's geology, history, and conservation efforts may reduce their understanding and appreciation of the Island's significance.



3. The reception area's unattractive location continues to affect the overall visitor experience.
4. The absence of looped trails limits visitor exploration options, potentially affecting visitor satisfaction.
5. Accessibility issues restrict the opportunity for visitors to see Coco-de-Mers in the wild

### 5.1.3 General Objectives and Strategies

*Objective 1: Use tourism in the Park as a source of sustainable financing to support the conservation of Curieuse Island and its Marine National Park.*

Strategies

**Promote Responsible Tourism:** Maintain collaboration with the Seychelles Tourism Department, Destination Management Companies, and local businesses to promote Curieuse as a site for responsible tourism. Emphasize sustainable practices and eco-friendly activities to attract visitors who appreciate and respect the Island's natural beauty and conservation efforts.

**Enhanced Services and Facilities:** Offer enhanced services, facilities, and merchandise within the Park to increase revenue generation. This can include eco-friendly souvenir shops, eco-tours with knowledgeable guides, and eco-lodges that align with the Park's conservation principles.

*Objective 2: Provide the best nature experience to visitors while minimizing their impact on natural ecosystems.*

Strategies:

**Informative Materials and Interpretation:** Improve the availability of educational materials and information about the Park's geology, history, habitats, and conservation efforts to enhance visitor learning and satisfaction. Interpretive signs, brochures, and guided tours can help visitors gain a deeper appreciation for Curieuse's natural and cultural significance.

**Enhanced Visitor Facilities:** Enhance visitor facilities while maintaining the Island's rustic character. This can include well-designed walking trails with information boards, improved restroom facilities, and shaded areas for relaxation to ensure visitors have a comfortable and enjoyable experience.

**Addressing Accessibility Issues:** Address accessibility issues to increase the opportunity for visitors to see Coco-de-Mers in the wild. This may involve creating accessible paths or designated viewing areas that do not disturb the natural habitats.

**Visitor Impact Management:** Implement effective management strategies to reduce visitor impact on natural ecosystems, especially during peak seasons. This can involve limiting the number of visitors at certain times, regulating visitor activities, and enforcing guidelines to protect sensitive areas.

### 5.1.5 Additional Measures to Reduce the Impact of Tourism

To address the impact of tourism on Curieuse Island's ecology, the following additional measures will be implemented:

1. **Zoning and Controlled Access:** Construction of tourist facilities will only be allowed in designated "Rangers Quarters" locations as per the Zoning Plan. Initial landing on Curieuse Island will be limited

to Baie Laraie, and tourists will be directed to terrestrial areas designated as the Eco-Tourism Zone in the Zoning Plan. Strict no access will be enforced to the Strict Conservation Zone, unless accompanied by SPGA staff or authorized partners.

**2. Environmental Regulations:** To minimize environmental damage, specific regulations will be enforced. Smoking will only be permitted around Anse St. José and the Baie Laraie Rangers Quarters. Playing loud music anywhere on the island will be strictly prohibited. Anchors will be allowed only in General Use Zones and designated Specific Use Zones, within sandy areas. No standing on corals will be allowed, and yachts and ships will be required to use sewage holding tanks, with direct discharge of sewage in the Park strictly prohibited.

**3. Wildlife Protection:** Measures will be taken to protect the Island's wildlife. No disturbance of nesting turtles will be allowed, and strict prohibition against sitting on the back of Giant Tortoises will be enforced. This ensures the well-being of the Park's unique fauna and preserves their natural behaviours.

**4. Exclusive Experiences:** The Authority can focus on offering exclusive experiences such as sunset cruises, private tours, and photography sessions. Furthermore, the Authority can consider partnering with luxury tour operators or offering yacht charters.

By implementing these strategies and measures, Curieuse Marine National Park aims to balance the benefits of tourism with the conservation of its unique ecosystems, ensuring that visitors have a memorable and educational experience while safeguarding the Island's natural heritage for future generations.

## **6. Scientific Research and Monitoring**

### **6.1.1 Values**

The role of scientific research and monitoring in the management of the Curieuse Marine National Park is crucial, as it provides the following values:

- 1.** Effective management of the Park relies on knowledge gained from scientific research and monitoring.
- 2.** Curieuse Island offers opportunities for long-term research studies and environmental monitoring, making it a valuable natural laboratory.
- 3.** Several long-term research projects are being conducted in collaboration with SPGA partners, enhancing the understanding of the Park's ecosystems and species.
- 4.** The availability of visitor accommodation on Curieuse Island facilitates hosting local and international researchers and students engaged in scientific research.

### **6.1.2 Issues**

However, there are several challenges related to scientific research and monitoring in the Park:

- 1.** SPGA has limited capacity and staffing to undertake research and habitat monitoring.

2. Research priorities are often dictated by external sources, potentially limiting the focus on critical park management needs.
3. There is a lack of sufficient monitoring programs targeting the main habitats that require management within the Park.
4. Research results are not consistently utilized to guide management planning within the Park.
5. Timely access to research data and recommendations by park management is a challenge.
6. Rangers' involvement in scientific research and monitoring needs to be improved.
7. Research data is dispersed, lacking a clear management system, and there is no central database or server for data archiving and retrieval.

### 6.1.3 General Objectives

*Objective: Use data from research and monitoring to support science-based decision making.*

Strategies:

**Data-Driven Decision Making:** Utilize data from environmental research and monitoring to guide conservation efforts and enhance park management decisions. Ensure that research findings are incorporated into the decision-making process to inform adaptive management strategies and improve conservation outcomes.

**Research Priority Plan:** Establish a comprehensive and well-defined Research Priority Plan aligned with the park's conservation goals and management needs. This Plan should focus on critical conservation issues within the Park and address research gaps necessary to support effective management.

**Collaborations with Scientific Institutions:** Foster collaborations with scientific institutions, research organizations, and universities to conduct research projects focusing on critical conservation issues within the Park. Encourage partnerships to leverage expertise and resources to address key research questions and enhance the scientific basis of management decisions.

**Emphasize Long-Term Monitoring:** Highlight the importance of long-term monitoring and research initiatives to track ecological indicators, species populations, and visitor trends. Long-term monitoring allows for trend analysis, identification of changes in the ecosystem, and evaluation of the effectiveness of conservation efforts over time.

**Additional Considerations:**

#### **6.1 Research Priorities<sup>3</sup>:**

**Critical Conservation Needs:** Prioritize research topics that align with the Park's conservation objectives and address pressing management needs. Research should focus on areas where knowledge gaps exist and where scientific insights are essential for effective conservation and restoration actions.

<sup>3</sup>Please take note that this section should be harmonized with the results of the ongoing Research Consulting, particularly the section concerning Curieuse, if available.



**Participatory Approach:** Involve park management, local communities, and other stakeholders in identifying research priorities. This participatory approach ensures that research aligns with the needs and interests of those involved in the Park's conservation and management.

## 6.2 Data Collection and Analysis:

**Comprehensive Monitoring Program:** Implement a well-structured and comprehensive monitoring program to collect data on critical ecological indicators, species populations, and visitor activities. The program should cover various habitats and key species within the Park.

**Technological Advancements:** Embrace technological advancements, such as remote sensing, drones, and other innovative tools, to enhance data collection efficiency and accuracy. These tools can aid in collecting data from challenging or inaccessible areas.

**Standardized Analysis Protocols:** Establish standardized data analysis protocols to convert collected data into actionable information that informs management decisions. This ensures consistency and comparability of research findings and facilitates evidence-based decision-making.

## 6.3 Knowledge Sharing and Capacity Building:

**Collaborative Learning Environment:** Facilitate knowledge sharing amongst park staff, researchers, and local communities to create a collaborative learning environment. Regular workshops, seminars, and forums should be organized to foster dialogue and exchange of ideas.

**Capacity Building:** Conduct workshops, training programs, and knowledge exchange platforms to enhance research and monitoring skills of stakeholders involved in park management. Empowering local researchers and park staff with technical skills strengthens the Park's capacity for research and monitoring.

**Dissemination of Findings:** Encourage researchers to publish and disseminate their findings through various channels, including scientific publications, conferences, and accessible platforms. Sharing research outcomes with the wider scientific community and the public promotes awareness and understanding of the Park's ecological importance.

By implementing these strategies and considering additional considerations, Curieuse Marine National Park aims to strengthen its scientific research and monitoring efforts, leverage valuable partnerships, and ensure that management decisions are grounded in sound science and data-driven insights. This approach will enhance the Park's conservation initiatives and contribute to the sustainable management of its unique and diverse ecosystems.

## 7. Park Administration

### 7.1.1 Values

The administrative facet, now under the umbrella of the Seychelles Parks and Gardens Authority (SPGA), assumes a pivotal role in the efficient management of Curieuse Marine National Park, underpinning the following values:

**Operational Support:** The administrative team stationed on Mahé Island serves as the backbone, providing indispensable support to the on-ground workforce at Curieuse Marine National Park.

**Operational Efficiency:** Effective administration translates directly into the seamless and effective functioning of the entire park management mechanism.

**Professional Image:** A robust corporate image reflects professionalism and operational prowess, contributing to the enhancement of the organization's reputation.

### 7.1.2 Issues

Numerous challenges have come to the forefront that warrant strategic attention for bolstering park administration and its efficacy:

**Staffing Optimization:** The deficiency in staffing levels hampers the operational fluidity of the Park's functions, necessitating a more robust workforce.

**Addressing Turnover:** The frequent turnover, particularly among rangers, poses a formidable obstacle to institutional knowledge retention and operational consistency.

**Motivation and Compliance:** Employee motivation, particularly in enforcing park regulations, is compromised due to the perception of limited follow-up on compliance matters from the central office.

**Revised Ranger Roles:** A recalibration of ranger responsibilities is needed, refocusing their functions on conservation initiatives, environmental monitoring, visitor engagement, patrols, and enforcement.

**Image Enhancement:** The existing corporate image of SPGA necessitates refurbishment to instil respect and credibility within diverse stakeholder circles.

**Creating Consistency:** The lack of consistent corporate branding creates challenges in linking SPGA sites, assets, documents, and personnel under a unified identity.

### 7.1.3 General Objectives

*Objective: Foster Proficient and Cost-effective Park Operations.*

Strategies:

**Staffing Reinforcement:** Ensuring an optimal quantity and quality of personnel is paramount. Identifying pivotal roles, recruiting skilled and motivated professionals, and investing in comprehensive training are instrumental in optimizing operational strength.

**Re-envisioning Ranger Roles:** A holistic re-evaluation of ranger responsibilities is imperative. Aligning ranger duties with conservation objectives, environmental surveillance, visitor interaction, patrolling, and rule enforcement maximizes their contributions.

**Elevating Image:** Improving the outward professionalism and appearance of frontline staff is critical. Outfitting staff with identification badges, and necessary tools bolsters their visibility and credibility during duty hours. This initiative also nurtures a sense of pride among staff in representing SPGA.

By pursuing these strategic pathways, SPGA aims to create a robust administrative framework that complements the efficient management of Curieuse Marine National Park. This approach accentuates the organization's commitment to maintaining the delicate balance between environmental preservation and sustainable operations.

## 7.1 Institutional Framework:

**Clear Roles and Responsibilities:** Strengthen the institutional framework for the management of Curieuse Marine National Park by clearly defining the roles and responsibilities of the Seychelles Parks and Gardens Authority and other relevant government agencies. This clarity fosters effective collaboration and ensures streamlined decision-making processes.

**Effective Coordination:** Enhance coordination mechanisms among stakeholders involved in park management to foster effective collaboration and cooperation. Regular meetings, joint planning sessions, and information sharing are essential for successful park administration.

## 7.2 Financial Sustainability

**Comprehensive Funding Plan:** Develop a comprehensive financial sustainability plan that outlines the sources of funding for park management and conservation activities. Diversify funding sources to reduce reliance on a single revenue stream and ensure financial stability. This shall be prepared in compliance with the relevant section(s) in the Seychelles Parks and Gardens Authority Act 2022.

**Sustainable Tourism Revenue:** Explore opportunities to generate revenue from sustainable tourism activities. Promote eco-friendly tourism experiences that contribute to conservation efforts while providing visitors with meaningful experiences.

## 7.3 Capacity Building:

**Training and Skill Development:** Invest in capacity building initiatives to enhance the skills and expertise of park management staff. Training programs should cover various areas, including conservation, enforcement, community engagement, and data analysis.

**Professional Development:** Promote continuous learning and professional development opportunities for park staff to stay updated on the latest conservation practices and management techniques. Encourage staff to participate in workshops, seminars, and conferences relevant to their roles.

## 7.4 Adaptive Management:

**Flexibility and Adaptability:** Implement an adaptive management approach that allows park management to respond effectively to changing environmental conditions and emerging challenges. Regularly review and update the Management Plan based on research findings, monitoring data, and feedback from stakeholders to ensure its relevance and efficacy.

**Data-Driven Decision Making:** Emphasize the importance of data-driven decision making in adaptive management. Use research and monitoring data to inform management decisions and identify necessary adjustments to conservation strategies.

## 7.5 Enforcement and Compliance:

**Strengthen Enforcement Measures:** Implement robust enforcement measures to address illegal activities, poaching, and non-compliance with park regulations. Work in collaboration with law enforcement agencies to enhance surveillance and control efforts within and around the Park, ensuring effective enforcement.



**Community Engagement:** Engage with local communities to build support for conservation efforts and encourage compliance with park regulations. Foster partnerships with local stakeholders to promote responsible behaviour and sustainable practices.

## **7.6 SPGA Autonomy:**

**Effective Budget Management:** Leverage the autonomy of SPGA to enhance budget management and financial planning. Optimize resource allocation to prioritize key conservation initiatives and essential operational needs.

**Efficiency Improvements:** Use the autonomy to streamline administrative processes and improve overall efficiency in park management. Implement effective systems for data management, reporting, and decision-making to enhance organizational effectiveness. This shall be in line with SPGA's Strategic Plan and Business Plan.

By implementing these strategies and considering additional considerations, Curieuse National Park aims to strengthen its park administration, improve efficiency, and enhance the overall management of the Marine National Park. This approach will support the Park's conservation objectives and ensure the long-term protection of its unique and valuable natural resources.

## **8. Training and Capacity Building**

### **8.1.1 Values**

Training and capacity building play a crucial role in enhancing the effectiveness and professionalism of the workforce. The following values highlight the importance of these processes:

1. Training is essential for imparting new knowledge and skills to staff.
2. An appropriate training program improves staff's abilities, leading to enhanced service delivery and effectiveness.
3. Offering relevant training and application opportunities boosts staff morale and can be a retention strategy.
4. Flexible training programs can be delivered on a part-time basis, minimizing staff absence from work.

### **8.1.2 Issues**

Several issues need to be addressed to ensure effective training and capacity building:

1. Rangers joining SPGA do not undergo any formal training, leading to potential gaps in essential knowledge and skills.
2. The annual training program does not align with the operational needs of staff.
3. Existing training opportunities may not match the priority requirements of rangers.
4. Local capacity for delivering staff training is underutilized.
5. Staff lack sufficient knowledge in environmental conservation, hindering their ability to carry out conservation efforts effectively.

### 8.1.3 General Objectives

*Objective: To have a workforce capable of fully implementing the Management Plan.*

Strategies:

1. Develop staff competencies in core areas such as scientific monitoring, visitor interaction, enforcement, and infrastructure maintenance to enhance their capabilities.

### 8.2 Comprehensive Training Program:

Establish a comprehensive training program that covers various aspects of park management, including conservation principles, sustainable practices, and visitor engagement.

Introduce formal training for new rangers, ensuring they acquire the necessary knowledge and skills before beginning fieldwork.

### 8.3 Targeted Training for Operational Needs:

Identify specific training needs based on the operational requirements of Curieuse Marine National Park.

Tailor training programs to address priority areas, such as biodiversity monitoring, ecological research, and sustainable tourism practices.

### 8.4 Collaboration with Local Expertise:

Collaborate with local conservation organizations, research institutions, and universities to utilize their expertise in delivering training programs.

Build partnerships with relevant stakeholders to create a network for sharing knowledge and resources.

### 8.5 Training on Environmental Conservation:

Implement training initiatives that focus on environmental conservation principles and sustainable resource management.

Ensure that staff members receive continuous learning opportunities to enhance their understanding of conservation challenges and best practices.

### 8.6 Monitoring and Evaluation:

Implement a monitoring and evaluation system to assess the effectiveness of training programs.

Gather feedback from participants to identify areas for improvement and to tailor future training initiatives to better meet staff needs.

## **8.7 Training for Community Engagement:**

Provide training on effective community engagement and collaboration to foster positive relationships between the park and local communities.

Strengthen the capacity of staff to work collaboratively with stakeholders and incorporate local knowledge in park management decisions.

## **9. Equipment, Infrastructure, and Utilities**

### **9.1.1 Values**

Having the necessary equipment, infrastructure, and utilities is vital for the effective operation of the Curieuse Marine National Park. The following values highlight their importance:

1. Appropriate equipment is essential for ensuring efficient and effective operations.
2. Boats and engines are crucial assets for transportation and surveillance duties in the Marine Park.
3. Careful and limited infrastructure development is necessary to preserve the sensitive environment of Curieuse.
4. Access to basic utilities such as electricity and potable water is essential for staff's comfort and well-being.

### **9.1.2 Issues**

Several issues need to be addressed to ensure the proper functioning and comfort of staff and visitors:

1. Insufficient boats and engines for patrol and operations within the Marine Park.
2. Many existing boats are old and require frequent repairs.
3. Dilapidated accommodation infrastructure with poor facilities.
4. Ranger quarters are incorrectly located, hindering visitor experience.
5. Unwelcoming reception area for visitors.
6. Lack of facilities for visitors to purchase essential items like water, coffee, and souvenirs.
7. Inadequate space for storing supplies in the back-of-house area.
8. Reliance on island-based electricity production, leading to disruptions and risks to food preservation and staff health.
9. Absence of potable water on Curieuse, leading to potential health risks for staff.





### **9.1.3 General Objectives**

*Objective: To ensure that management actions in the Park are not affected by the unavailability of proper equipment, and to provide a certain level of comfort for staff and visitors.*

Strategies:

1. Procure and provide appropriate equipment to enable staff to perform their duties effectively.
2. Improve the condition of visitor and staff infrastructure on Curieuse Island, creating a more welcoming environment.
3. Ensure a continuous and reliable supply of green electricity and potable water on Curieuse Island.

### **9.2 Boat and Engine Maintenance:**

Develop a regular maintenance schedule for boats and engines to prolong their lifespan and ensure safe and reliable operation.

Explore options for obtaining newer and more fuel-efficient boats and engines to minimize environmental impact.

### **9.3 Infrastructure Development:**

Prioritize infrastructure development based on its impact on the environment and the visitor experience.

Implement sustainable building practices to minimize the environmental footprint of new infrastructure while considering more futuristic and eco-friendly designs for long term life span.

### **9.4 Renewable Energy Sources:**

Following the study of the possibility of using renewable energy sources, such as solar power or wind turbines, to meet the island's electricity needs sustainably, implementation is now imminent.

### **9.5 Water Treatment and Conservation:**

Implement water treatment systems to provide potable water for staff and visitors.

Promote water conservation practices to ensure responsible water use on the Island through the increase of water storage capacity in conjunction with finding new water sources.

### **9.6 Visitor Facilities:**

Enhance visitor facilities, including the reception area and amenities for purchasing essentials and souvenirs, to improve visitor experience and generate additional revenue. The Cafeterias at Anse Jose and Baie Laraie are expected to enhance visitor experience and so will the Juice Bar.

### **9.7 Waste Management:**

Develop a comprehensive waste management plan to handle waste generated on the island responsibly and minimize its impact on the environment.

### **9.8 Sustainable Operations:**

Integrate sustainability principles into all aspects of Park operations to reduce the overall ecological footprint and promote long-term financially sustainable conservation goals.



## 10. Budget for Curieuse Management Plan (2023-2027)<sup>4</sup>

Headings	Budget(SCR) <sup>5</sup>
Management of coral reefs and associated habitats	2,478,950.24
Management of mangrove areas	1,000,000.00
Management of coastal forest and mountain landscapes	1,000,000.00
Management of freshwater wetlands	500,000.00
Marine turtles	1,500,000.00
Giant tortoises	1,500,000.00
Coco-de-mer	1,500,000.00
History and heritage	280,000.00
Nature tourism	2,000,000.00
Scientific research and monitoring	4,519,040.80
Park administration	4,500,000.00
Training and capacity building	2,000,000.00
Equipment, infrastructure, and utilities	10,936,760.22
Others	3,000,000.00
<b>GRAND TOTAL</b>	<b>36,714,751.26</b>

*<sup>4</sup>The yearly spending must correspond with the projected figures outlined in the Business Plan, in harmony with the yearly income, guaranteeing the lasting viability and strategic harmony of SPGA's activities. This must be reinforced by efficient scrutiny, surveillance, and assessment of real figures against anticipated figures. Any disparities should be rapidly identified and tackled. Furthermore, potential hazards and challenges should be promptly recognized, accompanied by swift rectifying measures.*

*<sup>5</sup> This budget reflects a notable increase of 17% compared to the actual budget of the previous plan.*

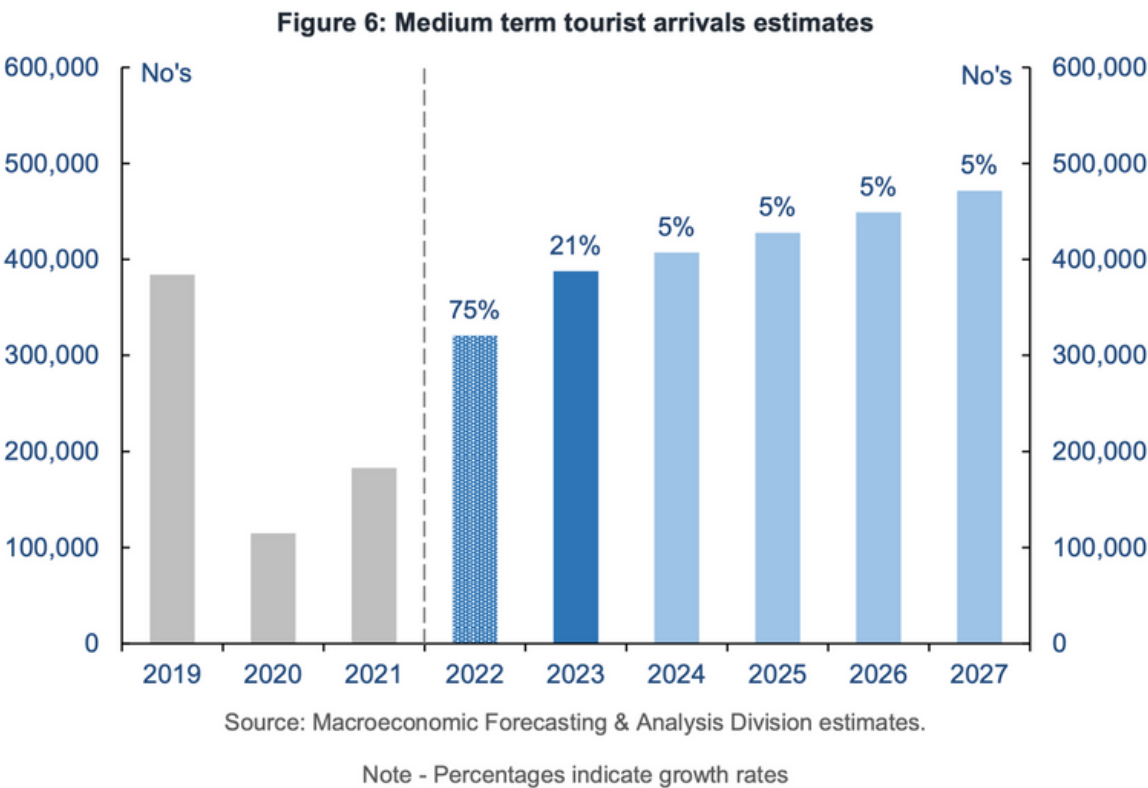


Income Targets and Sources:

To cover the budget for the Management Plan (2023-2027), the Curieuse Marine National Park aims to generate income from various sources, in line with SPGA’s financial autonomy. The income targets and sources are as follows:

1. Sustainable Tourism Revenues:

- *Income Target:* 70% of the total budget:
- *Sources:* Entrance fees, visitor permits, guided tours, eco-tourism activities, and sustainable tourism partnerships with local businesses. The development of the SPGA App is expected to boost revenue, if the design, implementation and deployment is carried out during the life of this Management Plan.



2. Grants:

- *Income Target:* 10% of the total budget
- *Sources:* Grants from international organizations supporting conservation initiatives. This is also expected to be captured on the SPGA App.

3. Private Sector Partnerships:

- *Income Target:* 10% of the total budget
- *Sources:* Corporate sponsorships, donations from private companies, and partnerships with eco-friendly tourism operators.

4. Philanthropic Contributions:

- *Income Target:* 5% of the total budget
- *Sources:* Donations from philanthropic foundations and individuals passionate about conservation and environmental causes. This is also expected to be captured on the SPGA App.

## **5. Research Grants and Collaborations:**

- Income Target: 3% of the total budget
- Sources: Research grants from scientific institutions, universities, and collaborative projects with international researchers. This is also expected to be captured on the SPGA App.

## **6. Sustainable Resource Use and Sustainable Livelihood Initiatives:**

- Income Target: 2% of the total budget
- Sources: Revenue generated from sustainable resource use projects, such as handicraft production and eco-friendly products developed by local communities.

## **7. Eco-Volunteer Programs and Environmental Education Initiatives:**

- Income Target: 1% of the total budget
- Sources: Fees from eco-volunteer programs and environmental education workshops conducted within the Park.

By diversifying income sources and setting realistic income targets, Curieuse Marine National Park can secure the necessary funds to implement the Management Plan effectively. The Park will adopt a transparent and accountable financial management system to ensure that the funds are allocated efficiently to different conservation and management programs. Additionally, regular monitoring and reporting on financial performance will enable the park management to make informed decisions and adjust strategies as needed to achieve its conservation and sustainable development objectives. Moreover, the design, implementation and deployment of the SPGA App is expected to boost revenue further.

## **11. Performance Evaluation**

To ensure the successful implementation of the Management Plan for Curieuse Marine National Park, a robust performance evaluation process will be established, drawing on effective approaches from best practices and the ICUN Management Plan Guidelines.

### ***Key Approaches:***

1. **Comprehensive Performance Measurement System (PMS):** The PMS will be designed to encompass specific, measurable, achievable, relevant, and time-bound (SMART) targets for each activity outlined in the Management Plan. The system will include well-defined indicators to assess progress and success.
2. **Annual Evaluation:** Performance evaluation will be conducted annually during the first quarter of each year. This regular assessment will provide valuable insights into the Plan's effectiveness and enable timely adjustments as needed.
3. **Independent Evaluator:** To ensure objectivity and unbiased evaluation, an independent evaluator, not affiliated with SPGA and preferably the Consultant reviewing the previous and preparing the new Management Plan, will be engaged. This impartial perspective will offer valuable feedback and strengthen the credibility of the evaluation process.
4. **Comprehensive Reporting:** A comprehensive report on the Park's performance will be prepared, highlighting achievements, challenges, and areas for improvement. The report will include insights from the evaluation, providing a basis for informed decision-making.

## Previous Management Plan Performance Evaluation (2018 – 2022):

In order to measure the success of the previous Plan, a quantitative method was employed:

The performance evaluation is based on the comparison of the actual achievements with the expected targets. The data indicates that overall, 737 out of 870 expected achievements were accomplished, resulting in an achievement rate of 85%. However, a few items have yet to be rated by Senior Management (please refer to the attached document).

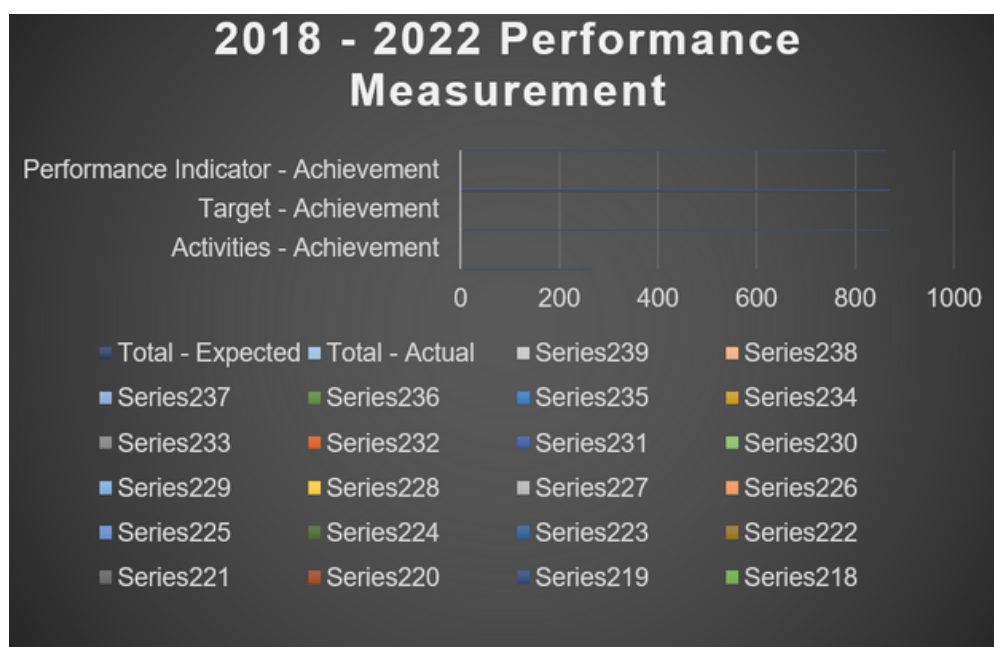
### *Breakdown of Achievement by Heading:*

- 1.Strategies - Achievement: 219 out of 265 (83% achievement)
- 2.Activities - Achievement: 737 out of 870 (85% achievement)
- 3.Target - Achievement: 737 out of 870 (85% achievement)
- 4.Performance Indicator - Achievement: 737 out of 870 (85% achievement)

The evaluation shows that achievements are consistent across all headings, with an average achievement rate of 85%. However, there is room for improvement in some specific strategies, activities, targets, or performance indicators to reach the desired outcomes fully. Regular performance evaluations and targeted improvements will help enhance the effectiveness and success of the Management Plan for the Curieuse Marine National Park.







The financial aspects of the Curieuse Management Plan for the period from 2018 to 2022. The analysis reveals the following:

**Actual Budget vs. Forecasted Budget:** The actual budget expenditure for the specified period amounted to SCR 31,368,497.05. On the other hand, the forecasted budget, which was projected for the same period, stood at SCR 46,950,350.00. This indicates a variance between the actual and forecasted budgets.

**Variance:** The variance between the actual budget and the forecasted budget is calculated as SCR 15,581,852.96. This variance reflects the difference between the financial resources that were actually expended and the amount that had been initially estimated or projected for the implementation of the management plan during the five-year period.

**Percentage of Variance:** The calculated variance, which is SCR 15,581,852.96, corresponds to approximately 67% of the forecasted budget. This percentage signifies the magnitude of the deviation between the forecasted and actual budgets.

Overall, the analysis highlights that the actual budget expended over the specified five-year period was significantly lower than the initially forecasted budget. The variance of SCR 15,581,852.96, representing around 67% of the forecasted budget, indicates a substantial difference between the anticipated financial allocation and the actual expenditure. Further examination and context should be used to identify areas for improvement in budget estimation and financial management for future Management Plans.

#### *Recommendations to Improve Financial Management:*

- 1. Budget Allocation Review:** Conduct a comprehensive review of the budget allocation to ensure that it accurately reflects the priorities and needs of the Management Plan. Ensure that funds are allocated to areas with the highest conservation impact and urgency.
- 2. Continuous Monitoring:** Establish a robust financial monitoring system that tracks actual expenditures against the budget on a regular basis. This will help identify any deviations or discrepancies early on and allow for timely corrective actions.

3. **Budget Flexibility:** While sticking to the budget is essential, allow for some flexibility to address unforeseen challenges or opportunities that may arise during the implementation period.
4. **Cost Control Measures:** Implement effective cost control measures to ensure that expenses are in line with the budgeted amounts. This can include negotiating better deals with suppliers, exploring cost-effective alternatives, and optimizing resource utilization.
5. **Expense Prioritization:** Prioritize expenses based on their impact on the conservation objectives and goals of the Management Plan. Allocate resources to projects and activities that align with the highest-priority outcomes.
6. **Efficiency Improvement:** Look for opportunities to streamline processes, reduce administrative overhead, and optimize resource allocation to improve efficiency and cost-effectiveness.
7. **Regular Reporting:** Ensure that financial reports are generated and shared regularly with stakeholders, including government agencies and funding partners. Transparency in financial reporting builds trust and accountability.
8. **Strategic Fundraising:** Explore additional fundraising opportunities to supplement the budget, such as grants, partnerships, and private donations. Diversifying funding sources can provide more financial stability.
9. **Capacity Building:** Provide training and capacity-building opportunities to the financial management team to enhance their skills in budgeting, financial analysis, and expenditure tracking.
10. **Annual Financial Review:** Conduct an annual financial review to assess the progress and financial performance of the Management Plan. This review can help identify trends, challenges, and areas for improvement.

By implementing these recommendations, Curieuse Marine National Park can enhance its financial management practices, ensure better alignment between budgeted and actual expenditures, and achieve more effective conservation outcomes within the allocated resources.

### ***Annual Monitoring and Tracking Strategies (2023 - 2027)***

To ensure the effective implementation of the Curieuse Management Plan (2023 - 2027), a comprehensive monitoring and tracking framework will be established. This framework will facilitate the regular assessment of progress, the identification of challenges, and the adaptation of strategies for optimal conservation outcomes. Here are the proposed per annum monitoring and tracking strategies and tactics for each year of the Plan:

*Year 2023: Theme - "Building for a Sustainable Future"*

**Comprehensive Baseline Assessment:** Conduct a comprehensive baseline assessment of the park's ecosystems, species populations, visitor trends, and infrastructure conditions at the beginning of the year to establish a starting point for monitoring.

**Establish SMART Indicators:** Develop specific, measurable, achievable, relevant, and time-bound (SMART) indicators for each strategy and activity outlined in the Management Plan.

**Visitor Engagement Surveys:** Conduct surveys to assess visitor satisfaction, perception, and awareness of conservation efforts. Gather feedback to enhance the visitor experience.

**Ecological Surveys:** Conduct ecological surveys to monitor key species, habitats, and indicators. This will provide insights into the health of the Park's ecosystems and the effectiveness of conservation measures.

*Year 2024: Theme - "Empowering Through Technology and Sustainability"*

**Progress Review:** Evaluate the achievements and challenges of the first year's implementation. Compare the actual progress with the expected targets and identify areas that require adjustments.

**Stakeholder Engagement:** Organize stakeholder workshops and meetings to gather input and feedback on the management plan's implementation. Collaboratively address emerging challenges and concerns.

**Financial Audit:** Conduct a financial audit to assess the alignment of actual expenditures with the allocated budget. Identify any discrepancies and take corrective actions as needed.

*Year 2025: Theme - "Conservation Beyond Boundaries"*

**Adaptive Management Assessment:** Review the performance of strategies and activities and assess the need for adaptive management. Adjust plans based on changing environmental conditions and emerging challenges.

**Research and Monitoring:** Strengthen research collaborations with scientific institutions to enhance data collection and analysis. Use research outcomes to inform decision-making.

**Visitor Impact Study:** Conduct a study to assess the impact of tourism activities on the island's ecosystems. Implement measures to minimize negative impacts and promote responsible tourism.

*Year 2026: Theme - "Building a Resilient Ecosystem"*

**Effectiveness Evaluation:** Evaluate the overall effectiveness of the Management Plan in achieving conservation goals. Analyse both short-term and long-term outcomes.

**Capacity Building:** Provide training and capacity-building opportunities for park staff, focusing on conservation techniques, data collection, and visitor management.

**Local Community Engagement:** Strengthen engagement with local communities through workshops, educational programs, and collaborative conservation initiatives.

*Year 2027: Theme - "Sustaining Conservation Excellence"*

**Performance Consolidation:** Consolidate performance data from all previous years to provide a comprehensive view of the Management Plan's impact over its duration.

**Lessons Learned Workshop:** Organize a lessons learned workshop involving all stakeholders to identify successes, challenges, and recommendations for future Management Plans.

**Preparation for the Next Phase:** Begin preparations for the development of the next Management Plan, incorporating insights gained from the current plan's implementation.



*Continuous Strategies Across All Years:*

**Regular Reporting:** Generate Annual Reports summarizing achievements, challenges, and progress. Share these reports with stakeholders, government agencies, and funding partners.

**Data Management:** Establish a central data repository to manage and organize monitoring data. This will ensure easy access to information for decision-making and reporting.

**Communication and Transparency:** Maintain open communication channels with stakeholders, local communities, and the public. Foster transparency in reporting and decision-making processes.

By implementing these monitoring and tracking strategies annually, Curieuse Marine National Park will ensure that its Management Plan remains adaptive, effective, and responsive to changing conservation needs and challenges.

## Management Plan Review Annual Monitoring - Summary

<u>Year</u>	<u>Strategies and Tactics</u>	<u>Monitoring Activities</u>	<u>Results Recording</u>
2023	Comprehensive Baseline Assessment: Conduct baseline assessment of ecosystems, species, visitor trends, and infrastructure.	- Ecological surveys and data collection.	- Data collected and analysed.
	Establish SMART indicators.	- Visitor engagement surveys. - Financial audit.	- Survey results compiled. - Budget analysis report.
2024	Progress Review: Evaluate achievements, challenges, and adjust plans.	- Review achievements against targets.	- Progress assessment report.
	Stakeholder Engagement: Gather input and feedback from stakeholders.	- Stakeholder workshops and meetings.	- Stakeholder feedback compiled.
2025	Adaptive Management Assessment: Assess need for adjustments based on changing conditions.	- Assessment of strategy effectiveness.	- Strategy adjustment report.
	Research and Monitoring: Collaborate with scientific institutions for enhanced research.	- Research collaborations and data collection.	- Research findings report.
2026	Effectiveness Evaluation: Analyse overall impact.	- Impact assessment and analysis.	- Effectiveness evaluation report.
	Capacity Building: Provide training opportunities for staff.	- Staff training workshops.	- Staff training records.
2027	Performance Consolidation: Summarize overall performance.	- Compilation of performance data.	- Performance summary report.
	Lessons Learned Workshop: Identify successes and challenges.	- Workshop with stakeholders.	- Workshop findings document.

## Management Plan Review Annual Monitoring - Detailed

<u>Year</u>	<u>Theme</u>	<u>Strategies and Tactics</u>	<u>Monitoring Activities</u>	<u>Results Recording</u>
2023	<b>Building for a Sustainable Future</b>	<ul style="list-style-type: none"> <li>- Completion of renovation work on Doctor's House.</li> <li>- Construction of Cafeteria and Juice Bar.</li> <li>- Identification of new water supply facility, notably construction of new water catchment storage.</li> <li>- Solidifying improved performance measurement system for staff performance.</li> <li>- Skills development of staff to make them more versatile and multi-tasking.</li> <li>- Staff retention and perhaps assessment of staff package.</li> <li>- Strengthen and expand existing nurseries for mangroves and other plants including tortoises.</li> <li>- Continuous targeted conservation efforts.</li> </ul>	<ul style="list-style-type: none"> <li>- Conduct a comprehensive baseline assessment of ecosystems, species, visitor trends, and infrastructure.</li> <li>- Develop specific, measurable, achievable, relevant, and time-bound (SMART) indicators for each strategy and activity.</li> <li>- Conduct surveys to assess visitor satisfaction, perception, and awareness of conservation efforts.</li> <li>- Conduct ecological surveys to monitor key species, habitats, and indicators.</li> </ul>	<ul style="list-style-type: none"> <li>- Data collected and analysed.</li> <li>- Survey results compiled.</li> <li>- Budget analysis report.</li> </ul>
2024	<b>Empowering Through Technology and Sustainability</b>	<ul style="list-style-type: none"> <li>- Solar PV and backup generators, proposing 2 generators to ensure alternate uses of both generators coupled with timely servicing and maintenance to expand their life span.</li> <li>- Procure additional drone(s) and high-tech equipment such as night vision and heat thermal sensors.</li> <li>- Continuous targeted conservation efforts.</li> <li>- Coco-de-Mer harvesting to planting ratio of 1:7.</li> <li>- Completion of Cafeteria - Best Case Scenario.</li> <li>- Manager's House and Rangers' Facilities.</li> <li>- Coral restoration.</li> </ul>	<ul style="list-style-type: none"> <li>- Evaluate the achievements and challenges of the first year's implementation.</li> <li>- Organize stakeholder workshops and meetings to gather input and feedback.</li> <li>- Review achievements against targets.</li> <li>- Conduct an assessment of strategy effectiveness.</li> </ul>	<ul style="list-style-type: none"> <li>- Progress assessment report.</li> <li>- Stakeholder feedback compiled.</li> <li>- Strategy adjustment report.</li> </ul>

<u>Year</u>	<u>Theme</u>	<u>Strategies and Tactics</u>	<u>Monitoring Activities</u>	<u>Results Recording</u>
2025	<b>Conservation Beyond Boundaries</b>	<ul style="list-style-type: none"> <li>- Completion of Cafeteria - Worst Case Scenario.</li> <li>- Assuming all facilities have been completed and are fully operational.</li> <li>- Income generation.</li> <li>- Continuous financially sustainable conservation efforts.</li> <li>- Rebuild the cause way.</li> </ul>	<ul style="list-style-type: none"> <li>- Assess the need for adjustments based on changing conditions.</li> <li>- Strengthen research collaborations with scientific institutions for enhanced research.</li> <li>- Conduct a study to assess the impact of tourism activities on the island's ecosystems.</li> <li>- Secure funds to rebuild cause way – sea wall.</li> </ul>	<ul style="list-style-type: none"> <li>- Strategy adjustment report.</li> <li>- Research findings report.</li> </ul>
2026	<b>Building a Resilient Ecosystem</b>	<ul style="list-style-type: none"> <li>- Assuming all targets under the Management Plan have been achieved.</li> <li>- Continuous financially sustainable conservation efforts.</li> </ul>	<ul style="list-style-type: none"> <li>- Evaluate the overall effectiveness of the management plan in achieving conservation goals.</li> <li>- Provide training opportunities for park staff.</li> <li>- Strengthen engagement with local communities through workshops, educational programs, and collaborative conservation initiatives.</li> </ul>	<ul style="list-style-type: none"> <li>- Effectiveness evaluation report.</li> <li>- Staff training records.</li> </ul>
2027	<b>Sustaining Conservation Excellence</b>	<ul style="list-style-type: none"> <li>- Maximisation of Income.</li> <li>- Continuous financially sustainable conservation efforts.</li> <li>- Lessons learned.</li> <li>- Paving the way for the new plan.</li> </ul>	<ul style="list-style-type: none"> <li>- Summarize overall performance.</li> <li>- Organize a lessons learned workshop involving all stakeholders to identify successes, challenges, and recommendations.</li> <li>- Begin preparations for the development of the next management plan.</li> </ul>	<ul style="list-style-type: none"> <li>- Performance summary report.</li> <li>- Workshop findings document.</li> </ul>



## 11. Review of the Plan

Regular reviews of the Management Plan are essential to ensure its continuous improvement and effectiveness, incorporating best practices and lessons learned from implementation.

### ***Key Approaches:***

1. **Frequent Reviews:** The Plan will undergo more frequent reviews during the first year to address any initial challenges and make necessary adjustments. Subsequent reviews will take place annually.
2. **Lessons Integration:** The review process will focus on integrating lessons learned from the evaluation and implementation to enhance the Plan's strategies and outcomes.
3. **Inclusive Assessment:** The review will involve a comprehensive assessment of achievements, challenges, and performance, considering the effectiveness of conservation efforts, visitor experiences, research outcomes, and staff capacity.
4. **Adaptive Management:** The review process will inform the drafting of a new Management Plan for the subsequent implementation period, incorporating adaptive management strategies to respond effectively to changing conservation needs and external factors.

By incorporating effective approaches from best practices, the ICUN Management Plan Guidelines, and evidence-based evaluation, the performance evaluation and review processes will drive the successful conservation and sustainable management of the Curieuse Marine National Park.

### **Conclusion**

The Curieuse Marine National Park Management Plan 2023-2027 represents a comprehensive and forward-thinking strategy for preserving this unique marine and coastal protected area. Through effective governance, stakeholder engagement, conservation efforts, and sustainable tourism practices, we will ensure the long-term preservation of Curieuse's natural and cultural heritage for the benefit of current and future generations. This Plan will guide us in fulfilling our vision of a thriving and resilient National Park that serves as a model for conservation and sustainable development worldwide.

## Annex I – Indicative list of Curieuse Marine National Parks stakeholders

- Seychelles Fishing Authority (SFA)
- Ministry of Agriculture, Climate Change and Environment
- Ministry of Finance, National Planning and Trade
- Ministry of Foreign Affairs and Tourism
- Ministry of Fisheries and Blue Economy
- DMCs, Boat Operators and Dive Centres
- Seychelles Island Foundation (SIF)
- Island Conservation Society of Seychelles (ICS)
- Marine Conservation Society Seychelles (MCSS)
- Air Seychelles
- Ministry of Education
- The British High Commission
- The Indian High Commission
- Raffles Hotel
- Seychelles Coast Guard
- Seychelles Conservation and Climate Adaptation Trust (SeyCCAT)



Seychelles  
Parks and Gardens  
Authority



